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# ELECTRON DENSITIES and SCALE HEIGHTS in the TOPSIDE IONOSPHERE: ALOUETTE I OBSERVATIONS OVER THE AMERICAN CONTINENTS

Volume III

CHAN, COLIN, and THOMAS

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# ELECTRON DENSITIES and SCALE HEIGHTS in the TOPSIDE IONOSPHERE: Alouette I Observations Over The American Continents

Volume III

## June, July, September, and October 1963

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# Introduction

This is one of a series of NASA Special Publications (refs. 1, 2, and 3) presenting data on electron density (N) and plasma scale height (H) at various heights (h) and times (t) in the topside ionosphere. The data presented were computed in the Computation and Analysis Branch of Ames Research Center from Alouette I topside sounder ionograms, made available by the World Data Center. The Alouette satellite is in an almost circular orbit at an altitude of 1000 km with an inclination of 80.5° and an orbital period of 105.4 minutes (ref. 4). The ionograms selected for analysis were chosen primarily for nearly complete latitudinal coverage over the American continents (i.e., approximately from 80° N to 80° S geographic latitude or from 90° N to 70° S dip latitude near the 80° W meridian) during winter, summer, and equinox months at a sunspot minimum epoch of the solar cycle. The location and coverage of each Alouette I telemetry receiving station is shown in figure 1. Ionogram data recorded at Antofagasta, College, Ft. Myers, East Grand Forks, Ottawa, Prince Albert, Quito, Resolute Bay, South Atlantic Station, and St. Johns were primarily chosen for analysis.

This pole-to-pole ionospheric study is being presented in four volumes. The first three contain tabulations of N(h,t) and H(h,t) for winter, summer, and equinox periods. The fourth volume of this series presents graphs summarizing the results of the first three books.

The number of Alouette I ionograms analyzed and presented in this volume are summarized in table I. An index for the tabulation is presented in table II. The universal time, local time, geographic latitude, geographic longitude, and magnetic dip angle for the first and last ionograms of each Alouette I pass reduced are indexed. The number of ionograms in each pass is also indicated. A graphical form of index of data analyzed in volume III is shown in figures 2 and 3. The pass number, date, and period of data analyzed in universal time (fig. 2) and local time (fig. 3) are presented.

The authors wish to acknowledge gratefully the continuing courtesy and cooperation of scientists of the Canadian Defence Research Telecommunications Establishment, Ottawa, Canada, particularly J. H. Chapman, E. S. Warren, and G. L. Nelms. We wish also to thank the World

Table I.—Ionograms in Volume III

| Month | Days | Passes | Ionograms |
|---|---|---|---|
| June 1963 | 23 | 39 | 1402 |
| July 1963 | 27 | 48 | 1468 |
| September 1963 | 16 | 17 | 714 |
| October 1963 | 1 | 1 | 93 |
| Total | 67 | 105 | 3627 |

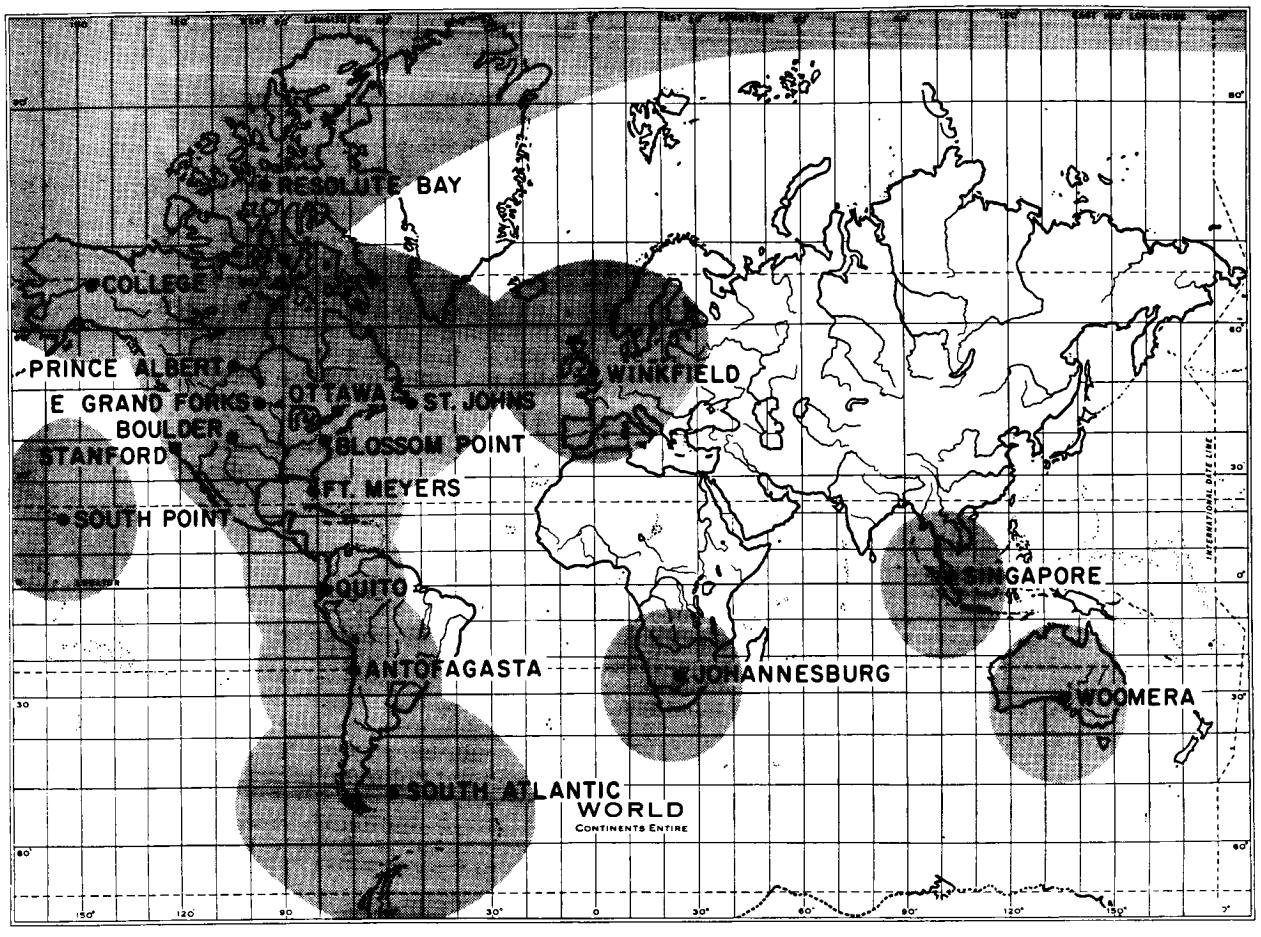


Figure 1.—Location and coverage of Alouette I telemetry receiving station.

Data Center, Boulder, Colorado, particularly Patricia Smith, for providing the Alouette I ionograms. The ionograms were read and digitized by members of the staff of the Stanford Research Institute, with T. Dayharsh and J. Hice supervising this operation.

## Use of the Tabulations

The tabulated N(h,t) and H(h,t) data in table III were computed by the method of overlapping polynomials (refs. 5 and 6) using digitized h'(f) data measured along the leading edge of the extraordinary trace on the ionograms. The quantity H is defined as $H = -N/(dN/dh)$. The required satellite position data are obtained by linear interpolation of the corresponding orbital information listed at 1-minute intervals in Alouette Refined World Maps supplied by Goddard Space Flight Center. The required earth's magnetic field parameters were evaluated by means of a spherical harmonic expansion representation of the field with coefficients as computed by Jensen and Cain (ref. 7).

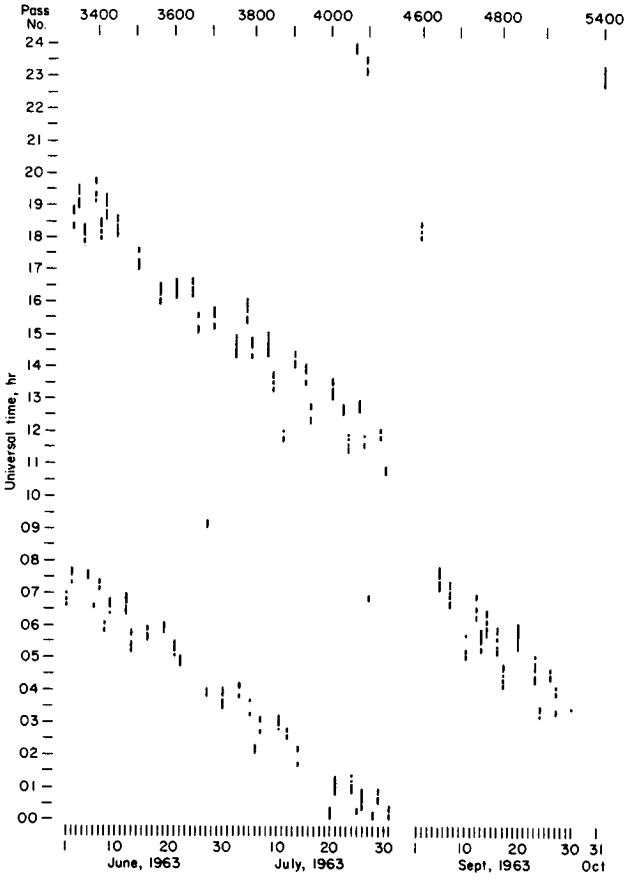


Figure 2.—Data analyzed in volume III (universal time coverage).

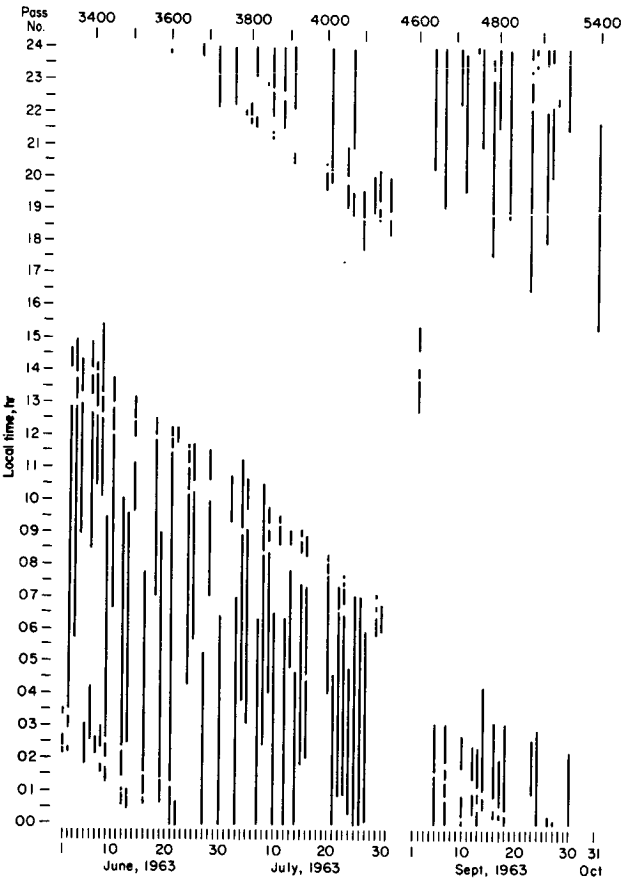


Figure 3.—Data analyzed in volume III (local time coverage).

In table III, the electron densities (in units of $10^5$ electrons per cc) and plasma scale heights (in units of km) are tabulated in groups of eight profiles per page with values given in altitude increments of 50 kilometers. The electron density table and corresponding plasma scale height table are listed one above the other. The profiles are listed sequentially in time from the beginning to the end of the pass. The times at the head of each column are the universal time (UT) in hours, minutes, and seconds (to the nearest second) of occurrence of $f_{XS}$, the frequency at which the extraordinary trace has zero range for that particular ionogram. The corresponding subsatellite geographic latitude and longitude, to the nearest $0.01^\circ$, for that time are listed below each column. The satellite typically travels some 80 kilometers during the production of a complete ionogram so that the positions listed are only strictly applicable to the electron density near 1000 kilometers. Consecutive profiles in a pass are separated in time by an integral multiple of $18 \pm 1$ seconds, the nominal frame time for Alouette I. During this period of 18 seconds, the spacecraft moves about 120 kilometers in distance along its orbit.

Each horizontal row of figures in the upper table gives the variation of electron density with time at a fixed height (N(t) data). Each vertical column of figures gives the variation of electron

density with height at a fixed time (N(h) data). Similarly, in the scale height tables below, each horizontal row of figures gives the variation of scale height with time at a fixed height (H(t) data); each vertical column of figures gives the variation of scale height with height at a fixed time (H(h) data).

The quality factor given at the bottom of each column is a subjective estimation of the quality and readability of the ionogram by the scaler at the time of scaling. The quality factor is described by the two-digit numbers 11, 21, 31, 12, 22, 32, 13, 23, and 33. The first digit indicates the quality of the ionogram, and the second digit the readability of the value of $f_xF_2$. (A more detailed description is given in the section entitled "Symbols, Abbreviations, and Units in Tabulations.")

The errors which can arise in reading and analyzing the records and the accuracy of the computed N(h,t) and H(h,t) data have been discussed in references 5 and 6. For a good quality ionogram (i.e., the first digit of the quality factor is 1 or 2) it is estimated that the height at which a given electron density is found is probably correct to ±10 kilometers, the accuracy increasing with increasing height. The scale height is probably correct to ±10 percent at heights less than 800 kilometers above which the accuracy decreases with increasing height.

In many cases, the ionogram trace does not extend to the critical frequency of the $F_2$ layer. In these circumstances, only the upper portion of the electron density profile is presented. It should be noted that the scale height at 1000 kilometers is omitted from the tabulations because of difficulties associated with ionogram scaling inaccuracies at frequencies just greater than $f_{xs}$. A blank column or space indicates that the missing profile or point was not considered accurate enough, upon final editing, to warrant inclusion in the data book.

## References


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# Index of Tabulation
# and
# Tabulation of Electron Density
# and Scale Heights

# Symbols, Abbreviations, and Units in Tabulations

N — electron density, $10^5$ per $cm^3$

h — real height above the ground, km

Pass — pass number of Alouette I

UT — universal time

Date — given as XX year, XX month, XX day; all zeroes are suppressed

Time — given as XX hour, XX minute, XX second; all zero digits on extreme left are suppressed

LONG — geographic longitude, deg; positive sign indicates longitude east of Greenwich; negative sign, west of Greenwich

LAT — geographic latitude, deg; positive sign indicates northern latitude; negative sign, southern latitude

QUAL — quality factor for the ionogram, coded in two-digit numbers (11, 21, 31, 12, 22, 32, 13, 23, and 33) and defined as follows:

*First Digit*

1 Excellent quality ionogram. Extraordinary trace is narrow, of high contrast, easily identifiable, possesses only small gaps and cannot be confused with ordinary trace, spreading or resonances anywhere along its extent. No spurious responses.

2 Good quality ionogram. Extraordinary trace is not too spread, of good contrast, fairly easily identifiable along most of its extent, any large gaps are easily interpolated and no major confusion exists with the ordinary trace, spreading or resonances, or spurious responses.

3 Poor quality ionogram, but readable. Considerable spreading, lack of contrast, overlapping traces and resonances, spurious traces, etc. Cause somewhat questionable scaling accuracies.

*Second Digit*

1 $f_XF_2$ clearly visible and read.

2 $f_XF_2$ not quite visible but highest visible frequency close to $f_XF_2$ or presence of ground reflections would allow an estimate of $f_XF_2$.

3 $f_XF_2$ not visible.

*ALOUETTE 1 Telemetry Receiving Sites*

| | |
|---|---|
| AGASTA | Antofagasta, Chile |
| COLEGE | College, Alaska, U. S. A. |
| FTMYRS | Ft. Myers, Florida, U. S. A. |
| GFORKS | East Grand Forks, Minnesota, U. S. A. |
| OTTAWA | Ottawa, Canada |
| PRINCE | Prince Albert, Canada |
| QUITOE | Quito, Ecuador |
| RESLUT | Resolute Bay, N. W. T. |
| SOLANT | South Atlantic Station |
| STJOHN | St. Johns, Newfoundland |

Table II.—Index of Tabulations

| STATION | PASS | MO | DD | YR | BEG UT | END UT | BEG LT | END LT | BEG DIP | END DIP | BEG LAT | BEG LONG | END LAT | END LONG | NO. ION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AGASTA | 3343 | 06 | 01 | 63 | 0637 | 0640 | 0212 | 0220 | -06 | 14 | 16S | 066W | 06S | 065W | 03 |
| QUITOE | 3343 | 06 | 01 | 63 | 0642 | 0646 | 0223 | 0235 | 26 | 48 | 00 | 064W | 16N | 062W | 09 |
| FTMYRS | 3344 | 06 | 01 | 63 | 0647 | 0650 | 0237 | 0245 | 51 | 60 | 19N | 062W | 28N | 061W | 04 |
| OTTAWA | 3344 | 06 | 01 | 63 | 0659 | 0700 | 0325 | 0335 | 77 | 78 | 57N | 053W | 61N | 051W | 02 |
| QUITOE | 3357 | 06 | 02 | 63 | 0718 | 0721 | 0213 | 0220 | 17 | 35 | 03S | 076W | 07N | 075W | 06 |
| OTTAWA | 3358 | 06 | 02 | 63 | 0733 | 0736 | 0258 | 0319 | 74 | 79 | 47N | 068W | 58N | 064W | 05 |
| RESLUT | 3358 | 06 | 02 | 63 | 0738 | 0747 | 0333 | 1001 | 81 | 82 | 63N | 061W | 79N | 033E | 30 |
| RESLUT | 3364 | 06 | 02 | 63 | 1817 | 1826 | 0618 | 1253 | 83 | 84 | 79N | 179W | 63N | 083W | 25 |
| QUITOE | 3364 | 06 | 02 | 63 | 1842 | 1850 | 1405 | 1426 | 39 | -11 | 09N | 069W | 19S | 066W | 16 |
| AGASTA | 3364 | 06 | 02 | 63 | 1850 | 1856 | 1424 | 1441 | -06 | -36 | 17S | 066W | 36S | 063W | 09 |
| SOLANT | 3364 | 06 | 02 | 63 | 1853 | 1856 | 1432 | 1442 | -23 | -38 | 27S | 065W | 37S | 063W | 05 |
| RESLUT | 3378 | 06 | 03 | 63 | 1854 | 1904 | 0547 | 1252 | 83 | 83 | 78N | 163E | 61N | 092W | 28 |
| OTTAWA | 3378 | 06 | 03 | 63 | 1905 | 1914 | 1305 | 1344 | 81 | 59 | 56N | 090W | 27N | 082W | 15 |
| QUITOE | 3378 | 06 | 03 | 63 | 1918 | 1930 | 1355 | 1423 | 43 | -24 | 12N | 080W | 26S | 076W | 19 |
| AGASTA | 3378 | 06 | 03 | 63 | 1929 | 1933 | 1417 | 1420 | -13 | -19 | 19S | 077W | 38S | 077W | 03 |
| SOLANT | 3378 | 06 | 03 | 63 | 1930 | 1938 | 1423 | 1456 | -24 | -53 | 26S | 076W | 53S | 070W | 07 |
| RESLUT | 3391 | 06 | 04 | 63 | 1748 | 1757 | 0857 | 1258 | 86 | 80 | 80N | 132W | 56N | 074W | 30 |
| OTTAWA | 3391 | 06 | 04 | 63 | 1801 | 1808 | 1322 | 1342 | 71 | 52 | 41N | 069W | 20N | 066W | 12 |
| QUITOE | 3391 | 06 | 04 | 63 | 1811 | 1820 | 1349 | 1410 | 40 | -12 | 10N | 065W | 20S | 062W | 17 |
| AGASTA | 3391 | 06 | 04 | 63 | 1818 | 1824 | 1405 | 1423 | 00 | -34 | 15S | 062W | 35S | 060W | 11 |
| SOLANT | 3391 | 06 | 04 | 63 | 1822 | 1823 | 1415 | 1420 | -22 | -29 | 26S | 061W | 31S | 060W | 03 |
| QUITOE | 3398 | 06 | 05 | 63 | 0726 | 0734 | 0152 | 0212 | 22 | 60 | 00 | 083W | 27N | 080W | 10 |
| OTTAWA | 3399 | 06 | 05 | 63 | 0734 | 0744 | 0213 | 0304 | 60 | 81 | 28N | 080W | 61N | 070W | 06 |
| STJOHN | 3412 | 06 | 06 | 63 | 0633 | 0640 | 0236 | 0415 | 76 | 82 | 52N | 059W | 74N | 036W | 23 |
| COLEGE | 3419 | 06 | 06 | 63 | 1903 | 1912 | 0830 | 1243 | 85 | 79 | 80N | 158W | 55N | 097W | 17 |
| FTMYRS | 3419 | 06 | 06 | 63 | 1919 | 1928 | 1316 | 1340 | 62 | 21 | 31N | 090W | 00 | 087W | 13 |
| AGASTA | 3419 | 06 | 06 | 63 | 1938 | 1944 | 1403 | 1429 | -31 | -53 | 30S | 083W | 51S | 078W | 10 |
| SOLANT | 3419 | 06 | 06 | 63 | 1939 | 1947 | 1406 | 1454 | -37 | -60 | 34S | 083W | 62S | 073W | 08 |
| OTTAWA | 3426 | 06 | 07 | 63 | 0707 | 0712 | 0209 | 0242 | 70 | 80 | 40N | 074W | 59N | 067W | 07 |
| RESLUT | 3426 | 06 | 07 | 63 | 0715 | 0723 | 0314 | 1028 | 82 | -73 | 67N | 061W | 77N | 046E | 09 |
| RESLUT | 3432 | 06 | 07 | 63 | 1757 | 1804 | 1028 | 1236 | 87 | 80 | 76N | 112W | 55N | 081W | 24 |
| OTTAWA | 3432 | 06 | 07 | 63 | 1807 | 1814 | 1253 | 1317 | 74 | 55 | 46N | 078W | 22N | 074W | 12 |
| QUITOE | 3432 | 06 | 07 | 63 | 1817 | 1827 | 1324 | 1351 | 42 | -21 | 11N | 073W | 23S | 069W | 08 |

Table II.—Index of Tabulations - Continued

| STATION | PASS | MO | DD | YR | BEG UT | END UT | BEG LT | END LT | BEG DIP | END DIP | BEG LAT | BEG LONG | END LAT | END LONG | NO. ION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AGASTA | 3432 | 06 | 07 | 63 | 1829 | 1835 | 1353 | 1415 | -24 | -48 | 27S | 069W | 47S | 064W | 12 |
| QUITOE | 3438 | 06 | 08 | 63 | 0548 | 0552 | 0132 | 0143 | 31 | 52 | 04N | 063W | 20N | 062W | 02 |
| FTMYRS | 3439 | 06 | 08 | 63 | 0553 | 0555 | 0145 | 0150 | 55 | 59 | 23N | 061W | 28N | 061W | 03 |
| OTTAWA | 3439 | 06 | 08 | 63 | 0603 | 0606 | 0223 | 0301 | 76 | 80 | 54N | 054W | 66N | 046W | 07 |
| RESLUT | 3446 | 06 | 08 | 63 | 1834 | 1841 | 1007 | 1230 | 86 | 79 | 77N | 126W | 54N | 092W | 24 |
| OTTAWA | 3446 | 06 | 08 | 63 | 1843 | 1851 | 1242 | 1309 | 77 | 53 | 47N | 090W | 21N | 085W | 13 |
| QUITOE | 3446 | 06 | 08 | 63 | 1854 | 1906 | 1316 | 1345 | 42 | -28 | 13N | 084W | 28S | 080W | 20 |
| AGASTA | 3446 | 06 | 08 | 63 | 1904 | 1912 | 1339 | 1408 | -15 | -50 | 20S | 081W | 48S | 076W | 10 |
| SOLANT | 3446 | 06 | 08 | 63 | 1908 | 1920 | 1350 | 1524 | -34 | -65 | 33S | 079W | 72S | 058W | 20 |
| QUITOE | 3452 | 06 | 09 | 63 | 0623 | 0631 | 0117 | 0137 | 17 | 56 | 03S | 076W | 23N | 073W | 11 |
| OTTAWA | 3453 | 06 | 09 | 63 | 0638 | 0642 | 0203 | 0228 | 74 | 80 | 47N | 068W | 59N | 063W | 06 |
| RESLUT | 3453 | 06 | 09 | 63 | 0643 | 0652 | 0240 | 0929 | 81 | 82 | 63N | 060W | 78N | 039E | 29 |
| RESLUT | 3473 | 06 | 10 | 63 | 1800 | 1809 | 0642 | 1200 | 84 | 82 | 80N | 169W | 60N | 092W | 31 |
| OTTAWA | 3473 | 06 | 10 | 63 | 1810 | 1819 | 1208 | 1249 | 81 | 59 | 57N | 090W | 27N | 082W | 14 |
| QUITOE | 3473 | 06 | 10 | 63 | 1823 | 1836 | 1300 | 1331 | 44 | -29 | 13N | 080W | 29S | 076W | 22 |
| AGASTA | 3473 | 06 | 10 | 63 | 1833 | 1840 | 1323 | 1347 | 15 | -46 | 20S | 077W | 45S | 073W | 11 |
| AGASTA | 3493 | 06 | 12 | 63 | 0622 | 0629 | 0036 | 0055 | -30 | 16 | 28S | 086W | 03S | 083W | 17 |
| QUITOE | 3494 | 06 | 12 | 63 | 0632 | 0633 | 0100 | 0102 | 30 | 35 | 04N | 082W | 07N | 082W | 03 |
| OTTAWA | 3494 | 06 | 12 | 63 | 0642 | 0649 | 0130 | 0215 | 70 | 82 | 40N | 078W | 63N | 068W | 10 |
| RESLUT | 3494 | 06 | 12 | 63 | 0650 | 0700 | 0223 | 1004 | 82 | 81 | 65N | 066W | 76N | 046E | 33 |
| AGASTA | 3506 | 06 | 13 | 63 | 0514 | 0521 | 0029 | 0048 | -25 | 19 | 27S | 071W | 03S | 068W | 14 |
| QUITOE | 3507 | 06 | 13 | 63 | 0523 | 0529 | 0052 | 0105 | 30 | 54 | 03N | 067W | 21N | 065W | 06 |
| RESLUT | 3507 | 06 | 13 | 63 | 0543 | 0551 | 0231 | 0936 | 81 | 82 | 68N | 047W | 77N | 056E | 29 |
| RESLUT | 3527 | 06 | 14 | 63 | 1702 | 1709 | 0942 | 1140 | 87 | 80 | 76N | 110W | 56N | 082W | 24 |
| OTTAWA | 3527 | 06 | 14 | 63 | 1712 | 1720 | 1159 | 1226 | 74 | 49 | 45N | 078W | 17N | 073W | 16 |
| QUITOE | 3527 | 06 | 14 | 63 | 1722 | 1731 | 1230 | 1250 | 42 | -07 | 11N | 073W | 17S | 070W | 16 |
| AGASTA | 3527 | 06 | 14 | 63 | 1731 | 1738 | 1250 | 1312 | -09 | -42 | 18S | 070W | 41S | 066W | 08 |
| QUITOE | 3547 | 06 | 16 | 63 | 0534 | 0535 | 0038 | 0042 | 49 | 55 | 17N | 073W | 22S | 073W | 03 |
| OTTAWA | 3548 | 06 | 16 | 63 | 0538 | 0546 | 0048 | 0129 | 62 | 79 | 30N | 072W | 58N | 064W | 10 |
| RESLUT | 3548 | 06 | 16 | 63 | 0547 | 0556 | 0138 | 0748 | 83 | 93 | 61N | 062W | 79N | 028E | 31 |
| RESLUT | 3581 | 06 | 18 | 63 | 1558 | 1607 | 0704 | 1110 | 86 | 79 | 80N | 133W | 55N | 074W | 32 |
| OTTAWA | 3581 | 06 | 18 | 63 | 1611 | 1617 | 1110 | 1151 | 71 | 54 | 42N | 069W | 22N | 066W | 12 |
| QUITOE | 3581 | 06 | 18 | 63 | 1621 | 1630 | 1201 | 1221 | 38 | -12 | 08N | 065W | 20S | 062W | 15 |

Table II.—Index of Tabulations - Continued

| STATION | PASS | MO | DD | YR | BEG UT | END UT | BEG LT | END LT | BEG DIP | END DIP | BEG LAT | BEG LONG | END LAT | END LONG | NO. ION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AGASTA | 3581 | 06 | 18 | 63 | 1631 | 1634 | 1224 | 1232 | -18 | -32 | 23S | 061W | 33S | 060W | 05 |
| OTTAWA | 3589 | 06 | 19 | 63 | 0548 | 0554 | 0040 | 0121 | 73 | 82 | 44N | 077W | 63N | 068W | 08 |
| RESLUT | 3589 | 06 | 19 | 63 | 0555 | 0604 | 0125 | 0900 | 82 | 81 | 64N | 067W | 76N | 043E | 32 |
| QUITOE | 3615 | 06 | 21 | 63 | 0504 | 0506 | 2345 | 2351 | 19 | 33 | 02S | 079W | 06N | 078W | 05 |
| OTTAWA | 3616 | 06 | 21 | 63 | 0513 | 0523 | 0008 | 0106 | 61 | 81 | 28N | 076W | 63N | 064W | 14 |
| RESLUT | 3616 | 06 | 21 | 63 | 0524 | 0533 | 0118 | 0845 | 82 | 82 | 66N | 061W | 76N | 047E | 32 |
| RESLUT | 3622 | 06 | 21 | 63 | 1606 | 1613 | 0757 | 1040 | 87 | 81 | 87N | 122W | 57N | 082W | 25 |
| OTTAWA | 3622 | 06 | 21 | 63 | 1613 | 1624 | 1039 | 1130 | 81 | 53 | 58N | 083W | 20N | 073W | 20 |
| QUITOE | 3622 | 06 | 21 | 63 | 1627 | 1635 | 1135 | 1153 | 43 | -03 | 43N | 073W | 15S | 070W | 15 |
| AGASTA | 3622 | 06 | 21 | 63 | 1636 | 1642 | 1155 | 1214 | -08 | -39 | 18S | 070W | 38S | 067W | 10 |
| OTTAWA | 3643 | 06 | 22 | 63 | 0445 | 0452 | 0002 | 0042 | 69 | 80 | 38N | 070W | 60N | 062W | 07 |
| RESLUT | 3643 | 06 | 22 | 63 | 0453 | 0502 | 1148 | 1215 | 81 | 82 | 64N | 059E | 78N | 092E | 30 |
| RESLUT | 3663 | 06 | 24 | 63 | 1610 | 1619 | 0421 | 1011 | 84 | 82 | 80N | 177W | 60N | 091W | 32 |
| OTTAWA | 3663 | 06 | 24 | 63 | 1620 | 1629 | 1020 | 1100 | 81 | 59 | 57N | 090W | 27N | 082W | 17 |
| QUITOE | 3663 | 06 | 24 | 63 | 1633 | 1642 | 1111 | 1130 | 41 | -06 | 11N | 080W | 15S | 077W | 13 |
| AGASTA | 3663 | 06 | 24 | 63 | 1643 | 1644 | 1136 | 1143 | -15 | -19 | 21S | 077W | 23S | 077W | 02 |
| RESLUT | 3676 | 06 | 25 | 63 | 1503 | 1512 | 0549 | 1015 | 86 | 79 | 80N | 138W | 55N | 074W | 31 |
| OTTAWA | 3676 | 06 | 25 | 63 | 1516 | 1518 | 1037 | 1045 | 71 | 65 | 42N | 069W | 34N | 068W | 05 |
| AGASTA | 3676 | 06 | 25 | 63 | 1533 | 1541 | 1121 | 1145 | 00 | -40 | 13S | 062W | 40S | 059W | 12 |
| RESLUT | 3697 | 06 | 27 | 63 | 0352 | 0401 | 0035 | 0518 | 81 | 83 | 67N | 049W | 70N | 057E | 30 |
| COLEGE | 3700 | 06 | 27 | 63 | 0903 | 0916 | 2341 | 0557 | 67 | 85 | 47N | 140W | 80N | 049W | 20 |
| RESLUT | 3717 | 06 | 28 | 63 | 1511 | 1520 | 0707 | 0959 | 87 | 78 | 78N | 121W | 51N | 080W | 32 |
| QUITOE | 3717 | 06 | 28 | 63 | 1531 | 1540 | 1038 | 1059 | 46 | -03 | 14N | 073W | 15S | 070W | 17 |
| AGASTA | 3717 | 06 | 28 | 63 | 1541 | 1550 | 1101 | 1132 | -10 | -48 | 18S | 069W | 48S | 064W | 18 |
| AGASTA | 3737 | 06 | 30 | 63 | 0329 | 0336 | 2211 | 2231 | -34 | 09 | 33S | 079W | 07S | 076W | 07 |
| QUITOE | 3737 | 06 | 30 | 63 | 0338 | 0345 | 2235 | 2252 | 19 | 54 | 02N | 075W | 21N | 073W | 11 |
| RESLUT | 3738 | 06 | 30 | 63 | 0357 | 0406 | 2347 | 0626 | 80 | 82 | 61N | 062W | 79N | 035E | 32 |
| FTMYRS | 3771 | 07 | 02 | 63 | 1417 | 1433 | 0921 | 1016 | 79 | 26 | 55N | 073W | 01N | 064W | 17 |
| OTTAWA | 3771 | 07 | 02 | 63 | 1419 | 1424 | 0932 | 0953 | 76 | 63 | 49N | 071W | 32N | 067W | 10 |
| QUITOE | 3771 | 07 | 02 | 63 | 1431 | 1440 | 1010 | 1032 | 39 | -13 | 09N | 065W | 20S | 062W | 17 |
| AGASTA | 3771 | 07 | 02 | 63 | 1438 | 1446 | 1027 | 1046 | -01 | -36 | 14S | 062W | 41S | 058W | 15 |
| SOLANT | 3771 | 07 | 02 | 63 | 1442 | 1443 | 1038 | 1041 | -21 | -30 | 28S | 061W | 31S | 060W | 02 |
| QUITOE | 3778 | 07 | 03 | 63 | 0346 | 0353 | 2214 | 2233 | 26 | 60 | 02N | 082W | 28N | 080W | 14 |

Table II.—Index of Tabulations - Continued

| STATION | PASS | MO | DD | YR | BEG UT | END UT | BEG LT | END LT | BEG DIP | END DIP | BEG LAT | BEG LONG | END LAT | END LONG | NO. ION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RESLUT | 3779 | 07 | 03 | 63 | 0405 | 0414 | 2336 | 0700 | 82 | 82 | 64N | 067W | 77N | 041E | 32 |
| COLEGE | 3799 | 07 | 04 | 63 | 1522 | 1531 | 0350 | 0858 | 84 | 81 | 80N | 172W | 58N | 098W | 16 |
| FTMYRS | 3799 | 07 | 04 | 63 | 1538 | 1548 | 0933 | 1000 | 66 | 22 | 35N | 091W | 00 | 086W | 17 |
| QUITOE | 3799 | 07 | 04 | 63 | 1546 | 1558 | 0956 | 1024 | 33 | -32 | 33N | 087W | 30S | 083W | 17 |
| AGASTA | 3799 | 07 | 04 | 63 | 1553 | 1600 | 1011 | 1031 | -07 | -41 | 15S | 085W | 38S | 082W | 07 |
| SOLANT | 3799 | 07 | 04 | 63 | 1558 | 1607 | 1026 | 1115 | -36 | -60 | 33S | 083W | 62S | 072W | 11 |
| QUITOE | 3805 | 07 | 05 | 63 | 0314 | 0317 | 2156 | 2204 | 20 | 39 | 31S | 079W | 10N | 078W | 07 |
| RESLUT | 3806 | 07 | 05 | 63 | 0340 | 0344 | 0308 | 0702 | 83 | 82 | 80N | 007W | 76N | 049E | 13 |
| RESLUT | 3812 | 07 | 05 | 63 | 1416 | 1425 | 0649 | 0907 | 87 | 77 | 76N | 111W | 50N | 079W | 31 |
| QUITOE | 3812 | 07 | 05 | 63 | 1437 | 1446 | 0947 | 1007 | 39 | -11 | 09N | 072W | 19S | 069W | 12 |
| AGASTA | 3812 | 07 | 05 | 63 | 1446 | 1455 | 1006 | 1040 | -09 | -50 | 18S | 069W | 50S | 063W | 14 |
| SOLANT | 3812 | 07 | 05 | 63 | 1449 | 1454 | 1014 | 1034 | -25 | -47 | 28S | 068W | 46S | 064W | 06 |
| AGASTA | 3818 | 07 | 06 | 63 | 0203 | 0206 | 2142 | 2149 | 03 | 22 | 11S | 065W | 00 | 064W | 07 |
| QUITOE | 3819 | 07 | 06 | 63 | 0207 | 0213 | 2153 | 2204 | 31 | 51 | 04N | 063W | 20N | 062W | 07 |
| FTMYRS | 3819 | 07 | 06 | 63 | 0212 | 0216 | 2203 | 2215 | 50 | 63 | 19N | 062W | 33N | 060W | 08 |
| AGASTA | 3832 | 07 | 07 | 63 | 0241 | 0243 | 2137 | 2141 | 10 | 20 | 07S | 076W | 02S | 075W | 03 |
| QUITOE | 3832 | 07 | 07 | 63 | 0243 | 0246 | 2141 | 2147 | 22 | 39 | 01S | 075W | 09N | 074W | 05 |
| RESLUT | 3833 | 07 | 07 | 63 | 0303 | 0312 | 2308 | 0621 | 81 | 82 | 65N | 058W | 77N | 047E | 29 |
| RESLUT | 3853 | 07 | 08 | 63 | 1420 | 1428 | 0229 | 0819 | 84 | 83 | 80N | 177W | 61N | 092W | 31 |
| OTTAWA | 3853 | 07 | 08 | 63 | 1430 | 1439 | 0830 | 0910 | 81 | 59 | 56N | 089W | 26N | 082W | 16 |
| QUITOE | 3853 | 07 | 08 | 63 | 1443 | 1452 | 0901 | 0941 | 43 | -06 | 13N | 080W | 16S | 077W | 14 |
| AGASTA | 3853 | 07 | 08 | 63 | 1453 | 1458 | 0944 | 1001 | -14 | -40 | 20S | 077W | 37S | 074W | 10 |
| SOLANT | 3853 | 07 | 08 | 63 | 1458 | 1504 | 1000 | 1030 | -39 | -56 | 37S | 074W | 57S | 068W | 02 |
| RESLUT | 3866 | 07 | 09 | 63 | 1313 | 1322 | 0405 | 0824 | 86 | 80 | 80N | 137W | 56N | 074W | 24 |
| OTTAWA | 3866 | 07 | 09 | 63 | 1326 | 1332 | 0846 | 0907 | 71 | 53 | 42N | 069W | 21N | 066W | 12 |
| QUITOE | 3866 | 07 | 09 | 63 | 1336 | 1345 | 0916 | 0937 | 39 | -13 | 09N | 065W | 20S | 061W | 15 |
| AGASTA | 3866 | 07 | 09 | 63 | 1343 | 1348 | 0932 | 0947 | -01 | -32 | 14S | 062W | 32S | 060W | 08 |
| AGASTA | 3873 | 07 | 10 | 63 | 0249 | 0249 | 2114 | 2114 | 12 | 12 | 05S | 083W | 05S | 083W | 01 |
| QUITOE | 3874 | 07 | 10 | 63 | 0251 | 0252 | 2120 | 2122 | 27 | 32 | 02N | 082W | 05N | 082W | 02 |
| OTTAWA | 3874 | 07 | 10 | 63 | 0303 | 0309 | 2154 | 2238 | 72 | 82 | 42N | 077W | 63N | 067W | 12 |
| RESLUT | 3874 | 07 | 10 | 63 | 0310 | 0320 | 2246 | 0632 | 82 | 81 | 65N | 066W | 75N | 048E | 32 |
| FTMYRS | 3894 | 07 | 11 | 63 | 1443 | 1454 | 0838 | 0908 | 66 | 16 | 36N | 091W | 02S | 086W | 20 |
| AGASTA | 3894 | 07 | 11 | 63 | 1459 | 1504 | 0918 | 0929 | -12 | -33 | 17S | 085W | 31S | 083W | 08 |

Table II.—Index of Tabulations - Continued

| STATION | PASS | MO | DD | YR | BEG UT | END UT | BEG LT | END LT | BEG DIP | END DIP | BEG LAT | BEG LONG | END LAT | END LONG | NO. ION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OTTAWA | 3901 | 07 | 12 | 63 | 0230 | 0238 | 2135 | 2221 | 70 | 81 | 36N | 074W | 63N | 064W | 15 |
| RESLUT | 3901 | 07 | 12 | 63 | 0240 | 0249 | 2240 | 0621 | 69 | 81 | 67N | 060W | 75N | 053E | 30 |
| RESLUT | 3921 | 07 | 13 | 63 | 1358 | 1405 | 0453 | 0750 | 86 | 81 | 78N | 136W | 57N | 093W | 26 |
| QUITOE | 3921 | 07 | 13 | 63 | 1418 | 1427 | 0840 | 0901 | 46 | -05 | 15N | 084W | 14S | 081W | 17 |
| AGASTA | 3927 | 07 | 14 | 63 | 0141 | 0147 | 2029 | 2043 | -22 | 12 | 24S | 078W | 06S | 075W | 02 |
| RESLUT | 3928 | 07 | 14 | 63 | 0208 | 0216 | 2206 | 0442 | 81 | 82 | 63N | 060W | 79N | 036E | 31 |
| RESLUT | 3948 | 07 | 15 | 63 | 1325 | 1334 | 0153 | 0729 | 84 | 82 | 80N | 172W | 59N | 091W | 31 |
| QUITOE | 3948 | 07 | 15 | 63 | 1348 | 1357 | 0826 | 0846 | 43 | -07 | 13N | 080W | 16S | 077W | 16 |
| AGASTA | 3948 | 07 | 15 | 63 | 1358 | 1404 | 0849 | 0907 | -14 | -41 | 20S | 077W | 40S | 074W | 08 |
| RESLUT | 3961 | 07 | 16 | 63 | 1217 | 1226 | 0204 | 0723 | 85 | 81 | 80N | 153W | 58N | 075W | 29 |
| QUITOE | 3961 | 07 | 16 | 63 | 1240 | 1249 | 0819 | 0839 | 43 | -06 | 12N | 065W | 17S | 062W | 15 |
| AGASTA | 3961 | 07 | 16 | 63 | 1247 | 1254 | 0836 | 0855 | 02 | -35 | 12S | 062W | 35S | 059W | 11 |
| SOLANT | 3961 | 07 | 16 | 63 | 1252 | 1253 | 0848 | 0850 | -24 | -29 | 27S | 061W | 30S | 060W | 02 |
| AGASTA | 4008 | 07 | 20 | 63 | 0007 | 0016 | 1938 | 2000 | -28 | -62 | 30S | 067W | 00 | 063W | 08 |
| QUITOE | 4009 | 07 | 20 | 63 | 0016 | 0022 | 2000 | 2011 | 24 | 47 | 00 | 064W | 16N | 062W | 06 |
| FTMYRS | 4009 | 07 | 20 | 63 | 0026 | 0026 | 2025 | 2026 | 63 | 64 | 33N | 060W | 34N | 060W | 02 |
| RESLUT | 4016 | 07 | 20 | 63 | 1303 | 1313 | 0403 | 0711 | 86 | 76 | 78N | 135W | 48N | 090W | 31 |
| OTTAWA | 4016 | 07 | 20 | 63 | 1312 | 1321 | 0706 | 0741 | 80 | 52 | 51N | 091W | 21N | 085W | 17 |
| QUITOE | 4016 | 07 | 20 | 63 | 1323 | 1332 | 0746 | 0806 | 43 | -05 | 13N | 084W | 14S | 081W | 16 |
| AGASTA | 4016 | 07 | 20 | 63 | 1333 | 1338 | 0809 | 0821 | -13 | -35 | 19S | 081W | 33S | 079W | 07 |
| AGASTA | 4022 | 07 | 21 | 63 | 0046 | 0054 | 1935 | 1952 | -21 | 25 | 24S | 077W | 00 | 075W | 05 |
| QUITOE | 4022 | 07 | 21 | 63 | 0054 | 0100 | 1954 | 2009 | 30 | 56 | 03N | 075W | 24N | 072W | 05 |
| OTTAWA | 4023 | 07 | 21 | 63 | 0102 | 0112 | 2013 | 2109 | 61 | 81 | 29N | 072W | 63N | 060W | 17 |
| RESLUT | 4023 | 07 | 21 | 63 | 0112 | 0122 | 2103 | 0438 | 80 | 82 | 61N | 062W | 77N | 049E | 34 |
| RESLUT | 4043 | 07 | 22 | 63 | 1230 | 1239 | 0053 | 0634 | 84 | 82 | 80N | 174W | 59N | 091W | 32 |
| OTTAWA | 4043 | 07 | 22 | 63 | 1240 | 1249 | 0643 | 0720 | 80 | 59 | 55N | 089W | 27N | 082W | 16 |
| RESLUT | 4056 | 07 | 23 | 63 | 1122 | 1131 | 0056 | 0628 | 85 | 81 | 80N | 156W | 59N | 075W | 31 |
| OTTAWA | 4056 | 07 | 23 | 63 | 1135 | 1142 | 0654 | 0717 | 73 | 53 | 45N | 070W | 21N | 066W | 13 |
| QUITOE | 4056 | 07 | 23 | 63 | 1145 | 1147 | 0724 | 0728 | 42 | 34 | 12N | 065W | 06N | 064W | 04 |
| AGASTA | 4056 | 07 | 23 | 63 | 1152 | 1153 | 0741 | 0743 | 03 | -02 | 11S | 062W | 14S | 062W | 02 |
| AGASTA | 4063 | 07 | 24 | 63 | 0051 | 0059 | 1906 | 1927 | -33 | 17 | 30S | 086W | 02S | 083W | 14 |
| QUITOE | 4063 | 07 | 24 | 63 | 0055 | 0108 | 1916 | 1949 | -11 | 60 | 17S | 084W | 28N | 079W | 22 |
| OTTAWA | 4064 | 07 | 24 | 63 | 0111 | 0113 | 2004 | 2056 | 68 | 72 | 36N | 078W | 42N | 077W | 04 |

Table II.—Index of Tabulations - Continued

| STATION | PASS | MO | DD | YR | BEG UT | END UT | BEG LT | END LT | BEG DIP | END DIP | BEG LAT | BEG LONG | END LAT | END LONG | NO. ION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RESLUT | 4064 | 07 | 24 | 63 | 0126 | 0129 | 0027 | 0441 | 83 | 80 | 80N | 014W | 75N | 047E | 13 |
| SOLANT | 4076 | 07 | 24 | 63 | 2340 | 2344 | 1849 | 1901 | -40 | -24 | 39S | 072W | 27S | 070W | 07 |
| AGASTA | 4076 | 07 | 24 | 63 | 2341 | 2352 | 1854 | 1921 | -35 | 24 | 35S | 071W | 00 | 067W | 17 |
| QUITOE | 4077 | 07 | 24 | 63 | 2354 | 2356 | 1925 | 1932 | 35 | 47 | 06N | 067W | 15N | 066W | 05 |
| RESLUT | 4077 | 07 | 25 | 63 | 0012 | 0021 | 2056 | 0407 | 81 | 82 | 66N | 050W | 77N | 056E | 27 |
| COLEGE | 4084 | 07 | 25 | 63 | 1237 | 1245 | 0117 | 0613 | 84 | 81 | 80N | 169W | 60N | 099W | 14 |
| GFORKS | 4084 | 07 | 25 | 63 | 1245 | 1258 | 0608 | 0703 | 82 | 49 | 60N | 099W | 18N | 088W | 22 |
| AGASTA | 4090 | 07 | 26 | 63 | 0019 | 0028 | 1846 | 1910 | -37 | 16 | 34S | 083W | 03S | 079W | 18 |
| QUITOE | 4091 | 07 | 26 | 63 | 0030 | 0037 | 1916 | 1931 | 31 | 58 | 04N | 078W | 27N | 076W | 10 |
| OTTAWA | 4091 | 07 | 26 | 63 | 0040 | 0049 | 1943 | 2037 | 69 | 82 | 38N | 074W | 65N | 062W | 15 |
| RESLUT | 4091 | 07 | 26 | 63 | 0049 | 0058 | 2036 | 0413 | 82 | 82 | 64N | 063W | 76N | 048E | 31 |
| RESLUT | 4097 | 07 | 26 | 63 | 1131 | 1139 | 0332 | 0618 | 87 | 78 | 78N | 119W | 53N | 080W | 30 |
| QUITOE | 4097 | 07 | 26 | 63 | 1151 | 1152 | 0659 | 0702 | 45 | 40 | 14N | 072W | 10N | 072W | 03 |
| SOLANT | 4103 | 07 | 26 | 63 | 2302 | 2314 | 1745 | 1848 | -62 | -19 | 63S | 079W | 24S | 066W | 08 |
| QUITOE | 4103 | 07 | 26 | 63 | 2320 | 2327 | 1903 | 1920 | 18 | 52 | 03S | 064W | 20N | 061W | 12 |
| FTMYRS | 4104 | 07 | 26 | 63 | 2327 | 2331 | 1919 | 1932 | 51 | 64 | 19N | 061W | 34N | 059W | 08 |
| RESLUT | 4108 | 07 | 27 | 63 | 0649 | 0657 | 0005 | 0550 | 89 | 74 | 80N | 100W | 61N | 016W | 29 |
| QUITOE | 4117 | 07 | 28 | 63 | 2357 | 0007 | 1855 | 1915 | 17 | 58 | 03S | 075W | 25N | 072W | 16 |
| OTTAWA | 4118 | 07 | 28 | 63 | 0007 | 0016 | 1919 | 2002 | 61 | 79 | 28N | 072W | 59N | 063W | 16 |
| QUITOE | 4131 | 07 | 29 | 63 | 0032 | 0042 | 1840 | 1902 | -03 | 49 | 12S | 087W | 18N | 084W | 16 |
| OTTAWA | 4132 | 07 | 29 | 63 | 0046 | 0056 | 1916 | 2013 | 66 | 83 | 35N | 082W | 64N | 070W | 19 |
| RESLUT | 4132 | 07 | 29 | 63 | 0053 | 0055 | 0701 | 0706 | 81 | 83 | 58N | 075W | 64N | 071W | 09 |
| OTTAWA | 4138 | 07 | 29 | 63 | 1145 | 1153 | 0547 | 0623 | 80 | 62 | 56N | 089W | 30N | 082W | 17 |
| QUITOE | 4138 | 07 | 29 | 63 | 1158 | 1201 | 0637 | 0643 | 43 | 28 | 12N | 080W | 02N | 079W | 04 |
| OTTAWA | 4151 | 07 | 30 | 63 | 1040 | 1047 | 0559 | 0621 | 73 | 55 | 45N | 070W | 23N | 066W | 12 |
| QUITOE | 4151 | 07 | 30 | 63 | 1050 | 1057 | 0629 | 0646 | 42 | 01 | 12N | 065W | 12S | 062W | 14 |
| QUITOE | 4158 | 07 | 31 | 63 | 0000 | 0010 | 1813 | 1844 | -08 | 46 | 15S | 084W | 15N | 081W | 16 |
| OTTAWA | 4159 | 07 | 31 | 63 | 0014 | 0024 | 1856 | 1958 | 62 | 82 | 30N | 079W | 65N | 066W | 17 |
| SOLANT | 4605 | 09 | 01 | 63 | 1755 | 1803 | 1245 | 1345 | -63 | -38 | 66S | 077W | 38S | 064W | 11 |
| AGASTA | 4605 | 09 | 01 | 63 | 1805 | 1810 | 1351 | 1405 | -31 | -03 | 32S | 063W | 15S | 061W | 02 |
| STJOHN | 4606 | 09 | 01 | 63 | 1824 | 1833 | 1438 | 1521 | 60 | 77 | 30N | 056W | 59N | 047W | 16 |
| COLEGE | 4654 | 09 | 05 | 63 | 0707 | 0716 | 2016 | 0049 | 85 | 80 | 80N | 162W | 56N | 096W | 11 |
| GFORKS | 4654 | 09 | 05 | 63 | 0715 | 0725 | 0039 | 0130 | 82 | 56 | 59N | 098W | 24N | 088W | 08 |

Table II.—Index of Tabulations - Continued

| STATION | PASS | MO | DD | YR | BEG UT | END UT | BEG LT | END LT | BEG DIP | END DIP | BEG LAT | BEG LONG | END LAT | END LONG | NO. ION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FTMYRS | 4654 | 09 | 05 | 63 | 0729 | 0732 | 0139 | 0145 | 41 | 26 | 13N | 087W | 03N | 086W | 05 |
| QUITOE | 4654 | 09 | 05 | 63 | 0731 | 0741 | 0143 | 0209 | 33 | -29 | 07N | 086W | 28S | 083W | 07 |
| AGASTA | 4654 | 09 | 05 | 63 | 0740 | 0751 | 0206 | 0301 | -25 | -60 | 25S | 083W | 61S | 072W | 14 |
| SOLANT | 4654 | 09 | 05 | 63 | 0744 | 0753 | 0218 | 0318 | -41 | -44 | 38S | 081W | 66S | 068W | 14 |
| RESLUT | 4681 | 09 | 07 | 63 | 0635 | 0647 | 1907 | 0043 | 79 | 78 | 80N | 172W | 51N | 090W | 19 |
| OTTAWA | 4681 | 09 | 07 | 63 | 0649 | 0656 | 0054 | 0117 | 73 | 52 | 44N | 088W | 21N | 084W | 12 |
| QUITOE | 4681 | 09 | 07 | 63 | 0658 | 0705 | 0124 | 0139 | 41 | 01 | 11N | 083W | 11N | 081W | 09 |
| AGASTA | 4681 | 09 | 07 | 63 | 0711 | 0717 | 0155 | 0219 | -31 | -51 | 31S | 078W | 50S | 074W | 08 |
| SOLANT | 4681 | 09 | 07 | 63 | 0712 | 0723 | 0158 | 0316 | -35 | -45 | 34S | 078W | 69S | 061W | 19 |
| RESLUT | 4721 | 09 | 10 | 63 | 0500 | 0505 | 2218 | 0006 | 88 | 81 | 75N | 097W | 59N | 075W | 08 |
| OTTAWA | 4721 | 09 | 10 | 63 | 0507 | 0516 | 0016 | 0053 | 78 | 54 | 37N | 068W | 22N | 065W | 07 |
| SOLANT | 4721 | 09 | 10 | 63 | 0540 | 0544 | 0145 | 0249 | -56 | -63 | 58S | 052W | 68S | 043W | 07 |
| COLEGE | 4749 | 09 | 12 | 63 | 0612 | 0620 | 1929 | 2348 | 85 | 81 | 80N | 160W | 59N | 098W | 15 |
| FTMYRS | 4749 | 09 | 12 | 63 | 0628 | 0635 | 0027 | 0048 | 64 | 34 | 33N | 090W | 07N | 086W | 12 |
| AGASTA | 4749 | 09 | 12 | 63 | 0650 | 0656 | 0127 | 0207 | -44 | -60 | 41S | 080W | 62S | 072W | 10 |
| SOLANT | 4749 | 09 | 12 | 63 | 0647 | 0658 | 0118 | 0225 | -35 | -44 | 33S | 082W | 66S | 068W | 17 |
| OTTAWA | 4762 | 09 | 13 | 63 | 0513 | 0520 | 2351 | 0021 | 79 | 64 | 54N | 080W | 32N | 074W | 07 |
| QUITOE | 4762 | 09 | 13 | 63 | 0528 | 0535 | 0043 | 0058 | 29 | -09 | 12N | 072W | 18S | 069W | 11 |
| AGASTA | 4762 | 09 | 13 | 63 | 0539 | 0547 | 0109 | 0156 | -30 | -57 | 31S | 067W | 59S | 059W | 08 |
| SOLANT | 4762 | 09 | 13 | 63 | 0538 | 0550 | 0105 | 0222 | -24 | -62 | 27S | 068W | 67S | 052W | 16 |
| RESLUT | 4776 | 09 | 14 | 63 | 0542 | 0551 | 2058 | 2345 | 86 | 79 | 78N | 131W | 53N | 091W | 27 |
| OTTAWA | 4776 | 09 | 14 | 63 | 0551 | 0558 | 2347 | 0016 | 78 | 61 | 52N | 091W | 29N | 085W | 09 |
| QUITOE | 4776 | 09 | 14 | 63 | 0603 | 0612 | 0029 | 0049 | 41 | -09 | 12N | 083W | 17S | 080W | 11 |
| AGASTA | 4776 | 09 | 14 | 63 | 0616 | 0625 | 0101 | 0148 | -30 | -59 | 30S | 079W | 61S | 069W | 17 |
| SOLANT | 4776 | 09 | 14 | 63 | 0617 | 0631 | 0103 | 0415 | -35 | -69 | 34S | 078W | 78S | 034W | 19 |
| RESLUT | 4803 | 09 | 16 | 63 | 0509 | 0517 | 1736 | 2302 | 84 | 84 | 79N | 173W | 63N | 093W | 29 |
| OTTAWA | 4803 | 09 | 16 | 63 | 0519 | 0522 | 2319 | 2340 | 81 | 75 | 58N | 089W | 47N | 085W | 04 |
| QUITOE | 4803 | 09 | 16 | 63 | 0533 | 0538 | 0016 | 0027 | 37 | 09 | 09N | 079W | 07S | 077W | 10 |
| AGASTA | 4803 | 09 | 16 | 63 | 0544 | 0551 | 0042 | 0106 | -26 | -49 | 27S | 075W | 49S | 071W | 11 |
| SOLANT | 4803 | 09 | 16 | 63 | 0548 | 0559 | 0056 | 0309 | -42 | -67 | 41S | 073W | 75S | 042W | 17 |
| RESLUT | 4816 | 09 | 17 | 63 | 0405 | 0413 | 2128 | 2331 | 88 | 75 | 75N | 099W | 48N | 070W | 22 |
| OTTAWA | 4816 | 09 | 17 | 63 | 0412 | 0421 | 2320 | 2357 | 78 | 56 | 54N | 072W | 24N | 065W | 11 |
| QUITOE | 4816 | 09 | 17 | 63 | 0427 | 0430 | 0011 | 0019 | 37 | 10 | 04N | 064W | 07S | 062W | 08 |

Table II.—Index of Tabulations - Concluded

| STATION | PASS | MO | DD | YR | BEG UT | END UT | BEG LT | END LT | BEG DIP | END DIP | BEG LAT | BEG LONG | END LAT | END LONG | NO. ION |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AGASTA | 4816 | 09 | 17 | 63 | 0436 | 0444 | 0035 | 0106 | -26 | -52 | 28S | 060W | 53S | 054W | 13 |
| SOLANT | 4816 | 09 | 17 | 63 | 0437 | 0450 | 0037 | 0225 | -29 | -65 | 30S | 059W | 72S | 036W | 22 |
| COLEGE | 4844 | 09 | 19 | 63 | 0517 | 0526 | 1847 | 2259 | 85 | 80 | 80N | 157W | 56N | 096W | 16 |
| GFORKS | 4844 | 09 | 19 | 63 | 0525 | 0535 | 2255 | 2341 | 81 | 55 | 58N | 097W | 24N | 088W | 15 |
| QUITOE | 4844 | 09 | 19 | 63 | 0542 | 0550 | 2357 | 0017 | 23 | -26 | 01N | 086W | 26S | 083W | 11 |
| AGASTA | 4844 | 09 | 19 | 63 | 0554 | 0601 | 0027 | 0111 | -40 | -59 | 37S | 081W | 61S | 072W | 11 |
| SOLANT | 4844 | 09 | 19 | 63 | 0554 | 0606 | 0029 | 0306 | -42 | -68 | 39S | 081W | 77S | 045W | 15 |
| RESLUT | 4898 | 09 | 23 | 63 | 0414 | 0422 | 1638 | 2209 | 84 | 84 | 79N | 173W | 63N | 093W | 17 |
| OTTAWA | 4898 | 09 | 23 | 63 | 0424 | 0430 | 2227 | 2259 | 81 | 67 | 57N | 089W | 35N | 082W | 12 |
| QUITOE | 4898 | 09 | 23 | 63 | 0437 | 0450 | 2318 | 2319 | 44 | -29 | 13N | 079W | 30S | 075W | 09 |
| AGASTA | 4898 | 09 | 23 | 63 | 0448 | 0453 | 2343 | 0001 | -17 | -43 | 24S | 075W | 42S | 072W | 08 |
| SOLANT | 4898 | 09 | 23 | 63 | 0502 | 0505 | 0122 | 0236 | -64 | -68 | 70S | 054W | 77S | 037W | 05 |
| QUITOE | 4911 | 09 | 24 | 63 | 0335 | 0337 | 2326 | 2330 | 07 | -05 | 09S | 062W | 16S | 061W | 04 |
| SOLANT | 4911 | 09 | 24 | 63 | 0345 | 0357 | 2354 | 0255 | -42 | -69 | 42S | 057W | 78S | 015W | 13 |
| COLEGE | 4939 | 09 | 26 | 63 | 0422 | 0430 | 1802 | 2203 | 85 | 80 | 80N | 155W | 57N | 096W | 16 |
| AGASTA | 4939 | 09 | 26 | 63 | 0458 | 0506 | 2331 | 0016 | -38 | -60 | 35S | 081W | 61S | 072W | 13 |
| SOLANT | 4939 | 09 | 26 | 63 | 0458 | 0506 | 2332 | 0016 | -39 | -60 | 36S | 081W | 61S | 072W | 09 |
| RESLUT | 4952 | 09 | 27 | 63 | 0316 | 0325 | 2001 | 2211 | 88 | 76 | 76N | 108W | 49N | 078W | 18 |
| OTTAWA | 4952 | 09 | 27 | 63 | 0323 | 0325 | 2205 | 2211 | 78 | 76 | 52N | 079W | 49N | 078W | 03 |
| SOLANT | 4952 | 09 | 27 | 63 | 0353 | 0357 | 2336 | 0005 | -46 | -57 | 46S | 064W | 58S | 060W | 06 |
| OTTAWA | 4966 | 09 | 28 | 63 | 0405 | 0408 | 2216 | 2227 | 69 | 60 | 39N | 087W | 28N | 085W | 06 |
| OTTAWA | 4993 | 09 | 30 | 63 | 0329 | 0330 | 2132 | 0214 | 81 | 78 | 57N | 089W | 51N | 086W | 04 |
| RESLUT | 5427 | 10 | 31 | 63 | 2240 | 2249 | 1516 | 1738 | 87 | 76 | 76N | 111W | 48N | 077W | 16 |
| OTTAWA | 5427 | 10 | 31 | 63 | 2249 | 2257 | 1736 | 1806 | 77 | 55 | 50N | 078W | 22N | 072W | 14 |
| QUITOE | 5427 | 10 | 31 | 63 | 2259 | 2311 | 1810 | 1839 | 48 | -17 | 16N | 072W | 23S | 068W | 12 |
| AGASTA | 5427 | 10 | 31 | 63 | 2310 | 2318 | 1837 | 1910 | -15 | -50 | 22S | 068W | 51S | 063W | 16 |
| SOLANT | 5427 | 10 | 31 | 63 | 2315 | 2318 | 1850 | 2144 | -36 | -69 | 36S | 066W | 26S | 077W | 35 |

TABLE III.- TABULATION OF ELECTRON DENSITY AND SCALE HEIGHT

PASS 3343 AT AGASTA, 63 6 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 63701 | 63922 | 64015 |
| 1000 | 0.124 | 0.146 | 0.152 |
| 950 | 0.131 | 0.159 | 0.167 |
| 900 | 0.141 | 0.175 | 0.184 |
| 850 | 0.155 | 0.193 | 0.204 |
| 800 | 0.174 | 0.215 | 0.229 |
| 750 | 0.192 | 0.243 | 0.264 |
| 700 | 0.212 | 0.275 | 0.310 |
| 650 | 0.245 | 0.312 | 0.363 |
| 600 | 0.289 | 0.369 | 0.440 |
| 550 | 0.358 | 0.444 | 0.552 |
| 500 | 0.463 | 0.567 | 0.744 |
| 450 | 0.647 | 0.801 | 1.032 |
| 400 | 0.953 | 1.216 | 1.489 |
| 350 | 1.460 | 2.008 | 2.087 |
| 300 | 2.077 | 3.030 | |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 778.7 | 537.5 | 508.7 |
| 900 | 623.8 | 507.7 | 475.4 |
| 850 | 555.0 | 477.6 | 443.6 |
| 800 | 489.6 | 453.5 | 411.8 |
| 750 | 451.1 | 431.9 | 368.8 |
| 700 | 412.7 | 393.7 | 319.4 |
| 650 | 350.1 | 332.0 | 281.4 |
| 600 | 284.2 | 293.7 | 243.8 |
| 550 | 227.6 | 255.5 | 202.9 |
| 500 | 177.0 | 175.2 | 159.3 |
| 450 | 140.5 | 133.2 | 146.8 |
| 400 | 125.8 | 107.8 | 143.5 |
| 350 | 121.7 | 103.0 | 162.6 |
| 300 | 256.1 | 236.2 | |
| LONG | -66.14 | -65.33 | -65.04 |
| LAT | -16.96 | -9.01 | -6.01 |
| QUAL | 32 | 22 | 23 |

PASS 3343 AT QUITOE, 63 6 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 64218 | 64254 | 64329 | 64422 | 64439 | 64514 | 64550 | 64625 |
| 1000 | 0.141 | 0.152 | 0.130 | 0.129 | 0.118 | 0.096 | 0.100 | 0.084 |
| 950 | 0.158 | 0.171 | 0.155 | 0.147 | 0.133 | 0.116 | 0.118 | 0.096 |
| 900 | 0.186 | 0.195 | 0.185 | 0.167 | 0.152 | 0.136 | 0.138 | 0.112 |
| 850 | 0.215 | 0.229 | 0.218 | 0.194 | 0.178 | 0.162 | 0.160 | 0.132 |
| 800 | 0.252 | 0.276 | 0.260 | 0.239 | 0.220 | 0.199 | 0.187 | 0.155 |
| 750 | 0.300 | 0.337 | 0.317 | 0.300 | 0.276 | 0.247 | 0.221 | 0.194 |
| 700 | 0.367 | 0.413 | 0.387 | 0.381 | 0.350 | 0.315 | 0.274 | 0.246 |
| 650 | 0.450 | 0.528 | 0.500 | 0.481 | 0.453 | 0.407 | 0.360 | 0.320 |
| 600 | 0.583 | 0.717 | 0.680 | 0.689 | 0.636 | 0.563 | 0.516 | 0.427 |
| 550 | 0.821 | 1.004 | 0.960 | 1.006 | 0.970 | 0.826 | 0.862 | 0.636 |
| 500 | 1.199 | 1.502 | 1.437 | 1.551 | 1.573 | 1.267 | 1.418 | 1.033 |
| 450 | 1.847 | 2.291 | 2.272 | 2.544 | 2.489 | 2.103 | 2.290 | 1.763 |
| 400 | 2.733 | 3.400 | 3.651 | 4.065 | 4.013 | 3.440 | | 3.188 |
| 350 | 3.742 | | | 5.882 | | 5.276 | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 406.8 | 407.5 | 286.3 | 400.9 | 392.6 | 290.3 | 324.6 | 344.6 |
| 900 | 337.8 | 339.1 | 286.9 | 347.9 | 332.5 | 285.0 | 322.7 | 306.1 |
| 850 | 325.0 | 304.0 | 278.4 | 294.2 | 281.2 | 263.1 | 323.5 | 287.1 |
| 800 | 296.5 | 275.0 | 265.9 | 255.4 | 257.6 | 243.7 | 309.4 | 268.0 |
| 750 | 270.0 | 251.1 | 249.0 | 219.7 | 234.1 | 224.6 | 267.1 | 240.9 |
| 700 | 252.9 | 230.0 | 232.1 | 200.3 | 207.5 | 203.1 | 208.4 | 212.1 |
| 650 | 235.8 | 184.2 | 186.4 | 180.8 | 174.6 | 178.5 | 175.5 | 184.3 |
| 600 | 164.1 | 159.9 | 156.9 | 154.3 | 134.5 | 141.7 | 111.5 | 157.6 |
| 550 | 144.9 | 142.7 | 138.7 | 127.9 | 112.1 | 130.7 | 99.5 | 109.1 |
| 500 | 123.8 | 121.5 | 118.1 | 106.4 | 107.5 | 106.8 | 102.4 | 101.1 |
| 450 | 123.5 | 121.9 | 104.3 | 102.9 | 109.2 | 98.1 | 109.6 | 89.2 |
| 400 | 134.5 | 128.7 | 119.6 | 114.2 | 110.0 | 105.0 | | 89.8 |
| 350 | 215.6 | | | 232.1 | | 168.0 | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -64.67 | -64.24 | -64.02 | -63.73 | -63.64 | -63.44 | -63.24 | -63.03 |
| LAT | 0.94 | 2.97 | 4.95 | 7.95 | 8.91 | 10.89 | 12.92 | 14.90 |
| QUAL | 33 | 33 | 23 | 22 | 33 | 33 | 33 | 33 |

PASS 3343 AT QUITOE, 63 6 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 64658 |
| 1000 | 0.081 |
| 950 | 0.097 |
| 900 | 0.116 |
| 850 | 0.143 |
| 800 | 0.183 |
| 750 | 0.236 |
| 700 | 0.296 |
| 650 | 0.397 |
| 600 | 0.569 |
| 550 | 0.942 |
| 500 | 1.646 |
| 450 | 2.715 |
| 400 | 4.333 |
| 350 | |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 284.7 |
| 900 | 250.1 |
| 850 | 226.6 |
| 800 | 225.6 |
| 750 | 224.7 |
| 700 | 190.6 |
| 650 | 160.0 |
| 600 | 128.3 |
| 550 | 94.8 |
| 500 | 97.2 |
| 450 | 103.4 |
| 400 | 107.8 |
| 350 | |
| 300 | |

| | |
|---|---|
| LONG | -62.83 |
| LAT | 16.77 |
| QUAL | 33 |

PASS 3344 AT FTMYRS, 63 6 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 64753 | 64828 | 64938 | 65031 |
| 1000 | 0.069 | 0.077 | 0.083 | 0.071 |
| 950 | 0.096 | 0.084 | 0.089 | 0.077 |
| 900 | 0.103 | 0.089 | 0.093 | 0.082 |
| 850 | 0.113 | 0.096 | 0.098 | 0.086 |
| 800 | 0.131 | 0.108 | 0.105 | 0.092 |
| 750 | 0.157 | 0.134 | 0.118 | 0.110 |
| 700 | 0.203 | 0.174 | 0.145 | 0.142 |
| 650 | 0.279 | 0.227 | 0.195 | 0.177 |
| 600 | 0.427 | 0.333 | 0.286 | 0.215 |
| 550 | 0.696 | 0.546 | 0.464 | 0.321 |
| 500 | 1.175 | 0.936 | 0.804 | 0.527 |
| 450 | 2.081 | 1.586 | 1.356 | 0.934 |
| 400 | 3.645 | 2.665 | 2.220 | 1.589 |
| 350 | | | | 2.609 |
| 300 | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 749.7 | 906.9 | | |
| 900 | 635.8 | 781.7 | 1003.5 | 889.2 |
| 850 | 419.2 | 558.3 | 819.3 | 769.1 |
| 800 | 332.3 | 384.0 | 602.1 | 563.0 |
| 750 | 262.3 | 287.1 | 341.1 | 389.2 |
| 700 | 200.2 | 202.6 | 216.5 | 224.8 |
| 650 | 144.9 | 167.5 | 158.6 | 205.9 |
| 600 | 109.3 | 116.4 | 117.1 | 187.0 |
| 550 | 100.3 | 96.5 | 95.9 | 116.1 |
| 500 | 92.0 | 95.2 | 94.4 | 95.3 |
| 450 | 85.0 | 95.0 | 98.7 | 91.0 |
| 400 | 100.0 | 102.4 | 110.4 | 97.3 |
| 350 | | | | 115.2 |
| 300 | | | | |
| LONG | -62.48 | -62.25 | -61.75 | -61.34 |
| LAT | 19.87 | 21.85 | 25.79 | 28.78 |
| QUAL | 33 | 33 | 33 | 33 |

PASS 3344 AT OTTAWA, 63 6 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 65908 | 70019 |
| 1000 | 0.064 | 0.076 |
| 950 | 0.076 | 0.089 |
| 900 | 0.090 | 0.103 |
| 850 | 0.105 | 0.117 |
| 800 | 0.122 | 0.133 |
| 750 | 0.141 | 0.151 |
| 700 | 0.163 | 0.172 |
| 650 | 0.188 | 0.199 |
| 600 | 0.218 | 0.231 |
| 550 | 0.257 | 0.269 |
| 500 | 0.305 | 0.320 |
| 450 | 0.371 | 0.392 |
| 400 | 0.465 | 0.490 |
| 350 | 0.610 | 0.644 |
| 300 | 0.842 | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| | | |
| 900 | | 361.8 |
| 850 | | 379.0 |
| 800 | 336.1 | 378.3 |
| 750 | 345.8 | 377.5 |
| 700 | 346.0 | 367.3 |
| 650 | 345.8 | 346.8 |
| 600 | 320.1 | 327.3 |
| 550 | 295.6 | 308.7 |
| 500 | 273.0 | 266.1 |
| 450 | 238.7 | 236.4 |
| 400 | 207.3 | 212.0 |
| 350 | 179.4 | 172.5 |
| 300 | 124.8 | |

| | | |
|---|---|---|
| LONG | -53.53 | -51.20 |
| LAT | 57.53 | 61.36 |
| QUAL | 33 | 33 |

PASS 3357 AT QUITOE, 63 6 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 71818 | 71853 | 71929 | 71950 | 72039 | 72131 |
| 1000 | 0.089 | 0.087 | 0.088 | 0.085 | 0.089 | 0.101 |
| 950 | 0.098 | 0.096 | 0.094 | 0.094 | 0.102 | 0.113 |
| 900 | 0.106 | 0.104 | 0.101 | 0.103 | 0.110 | 0.117 |
| 850 | 0.116 | 0.114 | 0.111 | 0.116 | 0.120 | 0.124 |
| 800 | 0.129 | 0.126 | 0.125 | 0.131 | 0.138 | 0.134 |
| 750 | 0.150 | 0.140 | 0.143 | 0.149 | 0.159 | 0.146 |
| 700 | 0.177 | 0.164 | 0.165 | 0.172 | 0.182 | 0.161 |
| 650 | 0.209 | 0.196 | 0.193 | 0.200 | 0.207 | 0.205 |
| 600 | 0.245 | 0.236 | 0.238 | 0.246 | 0.234 | 0.266 |
| 550 | 0.316 | 0.307 | 0.311 | 0.311 | 0.333 | 0.379 |
| 500 | 0.437 | 0.409 | 0.437 | 0.440 | 0.487 | 0.589 |
| 450 | 0.648 | 0.634 | 0.654 | 0.686 | 0.835 | 0.982 |
| 400 | 1.074 | 1.074 | 1.100 | 1.168 | 1.423 | 1.691 |
| 350 | 1.711 | 1.765 | 1.801 | 1.972 | 2.352 | 2.784 |
| 300 | 2.647 | 2.840 | 3.080 | 3.073 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 664.5 | 648.4 | 742.3 | 523.6 | | |
| 900 | 576.2 | 569.4 | 603.9 | 469.8 | 554.8 | 1135.7 |
| 850 | 489.5 | 511.3 | 484.4 | 429.7 | 477.1 | 740.3 |
| 800 | 415.6 | 450.2 | 438.0 | 392.3 | 397.7 | 586.5 |
| 750 | 370.6 | 389.1 | 391.6 | 360.9 | 350.8 | 494.7 |
| 700 | 325.7 | 340.2 | 340.9 | 330.9 | 327.6 | 397.6 |
| 650 | 290.3 | 293.3 | 281.4 | 297.2 | 304.4 | 194.0 |
| 600 | 256.4 | 246.4 | 223.7 | 242.2 | 281.1 | 169.3 |
| 550 | 187.0 | 200.3 | 171.2 | 186.7 | 137.7 | 136.3 |
| 500 | 147.3 | 152.3 | 145.3 | 130.2 | 115.1 | 103.2 |
| 450 | 117.4 | 105.1 | 116.8 | 109.9 | 93.4 | 97.5 |
| 400 | 102.0 | 97.8 | 97.9 | 91.9 | 96.4 | 96.3 |
| 350 | 113.2 | 103.6 | 100.7 | 101.7 | 107.0 | 108.2 |
| 300 | 118.1 | 117.0 | 105.2 | 125.9 | | |
| LONG | -76.18 | -76.00 | -75.81 | -75.69 | -75.43 | -75.15 |
| LAT | -3.66 | -1.68 | 0.35 | 1.54 | 4.31 | 7.25 |
| QUAL | 23 | 23 | 23 | 23 | 22 | 23 |

PASS 3358 AT OTTAWA, 63 6 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 73331 | 73459 | 73535 | 73612 |
| 1000 | 0.013 | 0.031 | 0.071 | 0.073 |
| 950 | 0.019 | 0.046 | 0.088 | 0.089 |
| 900 | 0.024 | 0.057 | 0.104 | 0.107 |
| 850 | 0.031 | 0.071 | 0.122 | 0.125 |
| 800 | 0.040 | 0.086 | 0.142 | 0.146 |
| 750 | 0.052 | 0.103 | 0.165 | 0.170 |
| 700 | 0.067 | 0.124 | 0.195 | 0.199 |
| 650 | 0.087 | 0.151 | 0.231 | 0.233 |
| 600 | 0.115 | 0.189 | 0.278 | 0.278 |
| 550 | 0.151 | 0.235 | 0.340 | 0.331 |
| 500 | 0.208 | 0.304 | 0.421 | 0.407 |
| 450 | 0.297 | 0.392 | 0.540 | 0.503 |
| 400 | 0.419 | 0.522 | | 0.639 |
| 350 | | 0.696 | | 0.811 |
| 300 | | 0.912 | | 1.067 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 176.6 | 178.3 | 269.3 | 281.0 |
| 900 | 189.5 | 225.1 | 308.4 | 296.4 |
| 850 | 193.8 | 246.5 | 320.9 | 315.3 |
| 800 | 195.9 | 257.4 | 322.8 | 319.8 |
| 750 | 195.0 | 263.4 | 314.3 | 322.3 |
| 700 | 194.0 | 254.8 | 299.5 | 310.9 |
| 650 | 190.3 | 236.1 | 282.5 | 299.0 |
| 600 | 182.9 | 225.6 | 259.9 | 282.5 |
| 550 | 173.6 | 215.1 | 238.2 | 266.1 |
| 500 | 146.1 | 201.4 | 216.8 | 245.3 |
| 450 | 148.7 | 188.3 | 194.7 | 224.2 |
| 400 | 146.6 | 180.0 | | 212.0 |
| 350 | | 182.2 | | 197.9 |
| 300 | | 197.2 | | 168.4 |
| LONG | -68.77 | -67.14 | -66.29 | -65.36 |
| LAT | 47.73 | 52.58 | 54.56 | 56.59 |
| QUAL | 33 | 33 | 33 | 33 |

PASS 3358 AT RESLUT, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 73813 | 73830 | 73847 | 73904 | 73924 | 73940 | 74015 | 74032 |
| 1000 | 0.096 | 0.118 | 0.135 | 0.143 | 0.128 | 0.123 | 0.135 | 0.172 |
| 950 | 0.103 | 0.131 | 0.146 | 0.160 | 0.146 | 0.141 | 0.154 | 0.195 |
| 900 | 0.116 | 0.149 | 0.163 | 0.179 | 0.168 | 0.165 | 0.174 | 0.221 |
| 850 | 0.136 | 0.169 | 0.184 | 0.203 | 0.196 | 0.194 | 0.202 | 0.249 |
| 800 | 0.160 | 0.191 | 0.209 | 0.229 | 0.228 | 0.226 | 0.237 | 0.281 |
| 750 | 0.187 | 0.222 | 0.240 | 0.262 | 0.271 | 0.265 | 0.279 | 0.321 |
| 700 | 0.219 | 0.260 | 0.277 | 0.301 | 0.325 | 0.317 | 0.332 | 0.372 |
| 650 | 0.255 | 0.303 | 0.320 | 0.345 | 0.389 | 0.378 | 0.395 | 0.431 |
| 600 | 0.295 | 0.353 | 0.368 | 0.395 | 0.463 | 0.448 | 0.466 | 0.498 |
| 550 | 0.362 | 0.409 | 0.421 | 0.479 | 0.547 | 0.529 | 0.547 | 0.574 |
| 500 | 0.516 | 0.472 | 0.490 | 0.603 | 0.692 | 0.710 | 0.657 | 0.706 |
| 450 | 0.676 | 0.610 | 0.618 | 0.753 | 0.909 | 0.934 | 0.848 | 0.898 |
| 400 | 0.867 | 0.799 | 0.768 | 0.922 | | 1.192 | 1.078 | 1.126 |
| 350 | 1.192 | 1.005 | 0.942 | 1.103 | | | 1.335 | 1.366 |
| 300 | 1.671 | 1.503 | 1.139 | 1.219 | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 566.9 | 455.2 | 553.8 | 420.5 | 359.3 | 338.7 | 371.5 | 401.6 |
| 900 | 456.8 | 395.2 | 447.6 | 411.8 | 339.7 | 317.2 | 350.6 | 399.1 |
| 850 | 346.6 | 370.9 | 408.6 | 399.2 | 320.3 | 311.4 | 335.3 | 385.7 |
| 800 | 325.0 | 348.3 | 370.2 | 386.7 | 301.0 | 305.6 | 320.1 | 372.2 |
| 750 | 311.7 | 338.4 | 360.7 | 369.8 | 289.8 | 298.4 | 304.8 | 358.3 |
| 700 | 298.3 | 328.6 | 351.1 | 349.6 | 282.3 | 285.6 | 296.8 | 344.3 |
| 650 | 285.0 | 318.8 | 341.6 | 329.4 | 274.9 | 272.8 | 288.8 | 330.2 |
| 600 | 271.6 | 309.0 | 332.0 | 309.1 | 267.5 | 260.0 | 280.9 | 316.1 |
| 550 | 250.6 | 299.2 | 322.5 | 293.3 | 260.0 | 247.1 | 273.0 | 302.1 |
| 500 | 225.2 | 289.4 | 310.7 | 280.1 | 206.2 | 231.1 | 264.7 | 284.6 |
| 450 | 199.8 | 276.0 | 290.4 | 266.9 | 119.7 | 215.1 | 255.3 | 264.9 |
| 400 | 177.0 | 261.4 | 270.1 | 306.5 | | 222.0 | 245.9 | 245.9 |
| 350 | 158.8 | 227.0 | 285.5 | 405.4 | | | 253.6 | 271.3 |
| 300 | 131.1 | 1125.0 | 405.7 | 680.7 | | | | |
| LONG | -61.28 | -60.51 | -59.75 | -58.94 | -57.77 | -56.84 | -54.50 | -53.17 |
| LAT | 63.10 | 64.00 | 64.90 | 65.79 | 66.82 | 67.64 | 69.42 | 70.26 |
| QUAL | 33 | 31 | 31 | 32 | 32 | 33 | 33 | 33 |

PASS 3358 AT RESLUT, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 74050 | 74108 | 74126 | 74143 | 74202 | 74219 | 74236 | 74254 |
| 1000 | 0.180 | 0.278 | 0.251 | 0.187 | 0.206 | 0.167 | 0.151 | 0.151 |
| 950 | 0.197 | 0.312 | 0.271 | 0.211 | 0.227 | 0.187 | 0.168 | 0.172 |
| 900 | 0.220 | 0.348 | 0.305 | 0.238 | 0.256 | 0.211 | 0.192 | 0.193 |
| 850 | 0.253 | 0.386 | 0.349 | 0.270 | 0.294 | 0.243 | 0.219 | 0.220 |
| 800 | 0.294 | 0.437 | 0.402 | 0.308 | 0.339 | 0.282 | 0.251 | 0.252 |
| 750 | 0.344 | 0.496 | 0.465 | 0.352 | 0.396 | 0.329 | 0.289 | 0.294 |
| 700 | 0.407 | 0.568 | 0.538 | 0.411 | 0.472 | 0.394 | 0.341 | 0.342 |
| 650 | 0.484 | 0.666 | 0.632 | 0.480 | 0.563 | 0.472 | 0.401 | 0.399 |
| 600 | 0.573 | 0.781 | 0.746 | 0.561 | 0.668 | 0.561 | 0.471 | 0.463 |
| 550 | 0.675 | 0.915 | 0.876 | 0.652 | 0.787 | 0.664 | 0.551 | 0.537 |
| 500 | 0.788 | 1.066 | 1.022 | 0.825 | 1.008 | 0.835 | 0.653 | 0.692 |
| 450 | 1.001 | 1.306 | 1.311 | 1.093 | 1.409 | 1.097 | 0.848 | 0.879 |
| 400 | 1.301 | 1.734 | 1.737 | 1.414 | | 1.356 | 1.081 | 1.098 |
| 350 | 1.625 | 2.229 | 2.281 | 1.749 | | 1.538 | 1.350 | 1.330 |
| 300 | 1.883 | 2.621 | 2.850 | 2.189 | | | 1.658 | 1.576 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 497.9 | 435.4 | 575.5 | 403.0 | 456.3 | 413.2 | 433.6 | 389.9 |
| 900 | 402.6 | 432.7 | 446.3 | 393.4 | 387.9 | 376.2 | 382.2 | 388.1 |
| 850 | 377.2 | 428.4 | 387.7 | 378.4 | 361.5 | 351.4 | 363.2 | 366.0 |
| 800 | 351.9 | 398.7 | 370.5 | 362.3 | 335.1 | 326.7 | 344.3 | 343.9 |
| 750 | 326.5 | 369.1 | 353.4 | 346.2 | 311.8 | 305.0 | 328.3 | 332.0 |
| 700 | 310.1 | 342.8 | 336.3 | 328.2 | 296.8 | 293.7 | 317.7 | 320.3 |
| 650 | 299.7 | 327.1 | 318.4 | 310.2 | 281.7 | 282.5 | 307.1 | 308.7 |
| 600 | 289.3 | 311.3 | 300.4 | 292.1 | 266.7 | 271.2 | 296.4 | 297.1 |
| 550 | 278.9 | 295.6 | 282.4 | 274.1 | 251.6 | 259.9 | 285.8 | 285.3 |
| 500 | 268.5 | 279.8 | 264.4 | 254.2 | 218.3 | 251.2 | 273.1 | 271.7 |
| 450 | 256.3 | 259.4 | 233.3 | 233.1 | 314.5 | 244.7 | 250.2 | 258.0 |
| 400 | 243.3 | 230.7 | 196.4 | 214.3 | | 323.9 | 227.3 | 250.5 |
| 350 | 282.6 | 314.4 | 230.7 | 206.8 | | 797.6 | 220.6 | 289.2 |
| 300 | 1740.7 | 748.0 | 350.3 | 1446.7 | | | 1905.3 | 334.0 |
| LONG | -51.77 | -50.13 | -48.20 | -46.38 | -44.26 | -41.68 | -39.09 | -36.36 |
| LAT | 71.16 | 72.03 | 72.88 | 73.67 | 74.55 | 75.27 | 75.98 | 76.74 |
| QUAL | 32 | 32 | 32 | 32 | 32 | 32 | 31 | 33 |

PASS 3358 AT RESLUT, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 74312 | 74329 | 74346 | 74405 | 74422 | 74439 | 74457 | 74514 |
| 1000 | 0.139 | 0.153 | 0.201 | 0.182 | 0.200 | 0.195 | 0.178 | 0.226 |
| 950 | 0.157 | 0.170 | 0.219 | 0.211 | 0.218 | 0.224 | 0.199 | 0.249 |
| 900 | 0.177 | 0.190 | 0.242 | 0.234 | 0.244 | 0.253 | 0.220 | 0.278 |
| 850 | 0.203 | 0.216 | 0.273 | 0.265 | 0.275 | 0.286 | 0.247 | 0.299 |
| 800 | 0.235 | 0.247 | 0.310 | 0.303 | 0.312 | 0.325 | 0.281 | 0.336 |
| 750 | 0.274 | 0.286 | 0.355 | 0.350 | 0.357 | 0.371 | 0.322 | 0.382 |
| 700 | 0.322 | 0.333 | 0.412 | 0.411 | 0.415 | 0.429 | 0.368 | 0.438 |
| 650 | 0.376 | 0.388 | 0.480 | 0.483 | 0.482 | 0.499 | 0.421 | 0.502 |
| 600 | 0.438 | 0.450 | 0.557 | 0.567 | 0.559 | 0.580 | 0.480 | 0.575 |
| 550 | 0.528 | 0.520 | 0.644 | 0.662 | 0.646 | 0.671 | 0.567 | 0.656 |
| 500 | 0.698 | 0.644 | 0.741 | 0.904 | 0.742 | 0.773 | 0.703 | 0.746 |
| 450 | 0.907 | 0.841 | 0.954 | 1.226 | 0.951 | 0.918 | 0.864 | 0.963 |
| 400 | 1.162 | 1.076 | 1.231 | 1.613 | 1.223 | 1.192 | 1.076 | 1.242 |
| 350 | 1.473 | 1.388 | 1.629 | 1.859 | 1.550 | 1.520 | 1.389 | 1.584 |
| 300 | 1.800 | 1.766 | 2.008 | | 1.941 | 2.027 | 1.794 | 1.996 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 391.1 | 438.6 | 507.3 | | 519.2 | | 468.4 | 544.7 |
| 900 | 376.2 | 408.2 | 455.6 | 412.8 | 442.2 | 387.6 | 453.3 | 523.1 |
| 850 | 357.1 | 383.3 | 425.6 | 384.3 | 412.9 | 382.2 | 421.1 | 470.3 |
| 800 | 338.0 | 358.3 | 395.7 | 354.8 | 383.5 | 367.3 | 388.8 | 417.5 |
| 750 | 322.1 | 340.7 | 365.7 | 330.6 | 358.2 | 352.4 | 373.4 | 388.6 |
| 700 | 307.4 | 327.6 | 349.1 | 312.2 | 345.3 | 341.1 | 358.2 | 373.0 |
| 650 | 292.7 | 314.5 | 333.9 | 293.7 | 332.3 | 330.8 | 343.0 | 357.4 |
| 600 | 277.9 | 301.4 | 318.7 | 275.3 | 319.3 | 320.6 | 327.8 | 341.8 |
| 550 | 261.3 | 288.3 | 303.4 | 256.8 | 306.3 | 310.3 | 306.1 | 326.1 |
| 500 | 239.9 | 265.8 | 288.2 | 223.8 | 293.3 | 300.1 | 276.2 | 310.5 |
| 450 | 218.5 | 235.2 | 249.3 | 189.0 | 262.7 | 281.0 | 246.3 | 269.0 |
| 400 | 219.4 | 204.7 | 206.5 | 380.0 | 229.4 | 237.5 | 218.9 | 224.2 |
| 350 | 248.7 | 200.9 | 323.4 | 850.4 | 217.8 | 194.0 | 196.4 | 210.7 |
| 300 | 296.0 | 199.4 | 913.0 | | 228.6 | 208.2 | 177.7 | 216.9 |
| LONG | -32.86 | -29.18 | -25.51 | -21.02 | -16.06 | -11.10 | -5.86 | -0.27 |
| LAT | 77.40 | 77.97 | 78.55 | 79.12 | 79.48 | 79.84 | 80.22 | 80.51 |
| QUAL | 33 | 33 | 32 | 32 | 33 | 32 | 33 | 22 |

PASS 3358 AT RESLUT, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 74532 | 74549 | 74606 | 74625 | 74643 | 74700 |
| 1000 | 0.124 | 0.329 | 0.212 | 0.253 | 0.143 | 0.190 |
| 950 | 0.145 | 0.356 | 0.239 | 0.277 | 0.168 | 0.223 |
| 900 | 0.166 | 0.385 | 0.267 | 0.302 | 0.200 | 0.259 |
| 850 | 0.190 | 0.422 | 0.297 | 0.335 | 0.239 | 0.298 |
| 800 | 0.217 | 0.470 | 0.333 | 0.376 | 0.297 | 0.353 |
| 750 | 0.246 | 0.527 | 0.374 | 0.431 | 0.369 | 0.419 |
| 700 | 0.283 | 0.595 | 0.426 | 0.499 | 0.456 | 0.504 |
| 650 | 0.326 | 0.679 | 0.489 | 0.579 | 0.575 | 0.615 |
| 600 | 0.373 | 0.776 | 0.563 | 0.672 | 0.719 | 0.748 |
| 550 | 0.427 | 0.886 | 0.647 | 0.776 | 0.888 | 0.901 |
| 500 | 0.516 | 1.009 | 0.740 | 1.078 | 1.158 | 1.210 |
| 450 | 0.665 | 1.226 | 0.874 | 1.482 | 1.550 | 1.654 |
| 400 | 0.843 | 1.568 | 1.164 | 1.945 | 1.961 | 2.204 |
| 350 | 1.052 | 1.993 | 1.515 | 2.284 | 2.158 | |
| 300 | 1.431 | 2.565 | 1.924 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 333.0 | | | 539.6 | 293.1 | 320.3 |
| 900 | 358.6 | 555.5 | 436.1 | 511.3 | 274.3 | 318.9 |
| 850 | 362.9 | 513.0 | 434.0 | 449.0 | 257.3 | 314.1 |
| 800 | 363.7 | 474.9 | 412.9 | 382.9 | 249.2 | 297.3 |
| 750 | 360.1 | 436.9 | 391.7 | 358.3 | 241.2 | 280.5 |
| 700 | 346.4 | 403.3 | 373.8 | 336.7 | 233.1 | 265.3 |
| 650 | 332.7 | 382.4 | 357.5 | 315.2 | 226.0 | 251.8 |
| 600 | 319.0 | 361.4 | 341.2 | 293.7 | 219.1 | 238.3 |
| 550 | 305.2 | 340.4 | 324.9 | 272.2 | 212.2 | 224.7 |
| 500 | 285.0 | 319.4 | 308.6 | 207.8 | 203.5 | 200.0 |
| 450 | 257.6 | 286.4 | 287.2 | 160.1 | 193.7 | 171.5 |
| 400 | 230.2 | 243.1 | 246.9 | 236.3 | 345.8 | 181.9 |
| 350 | 202.8 | 209.2 | 206.5 | 896.4 | 824.6 | |
| 300 | 169.4 | 210.0 | 214.7 | | | |
| LONG | 5.79 | 11.51 | 17.06 | 22.91 | 28.45 | 33.69 |
| LAT | 80.35 | 80.39 | 80.32 | 80.00 | 79.70 | 79.42 |
| QUAL | 22 | 21 | 32 | 32 | 32 | 22 |

PASS 3364 AT RESLUT, 63 6 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 181715 | 181732 | 181750 | 181808 | 181825 | 181843 | 181900 | 181917 |
| 1000 | 0.189 | 0.173 | 0.175 | 0.152 | 0.123 | 0.141 | 0.143 | 0.147 |
| 950 | 0.215 | 0.198 | 0.205 | 0.181 | 0.148 | 0.165 | 0.164 | 0.169 |
| 900 | 0.238 | 0.224 | 0.231 | 0.210 | 0.169 | 0.191 | 0.188 | 0.188 |
| 850 | 0.273 | 0.261 | 0.266 | 0.245 | 0.197 | 0.223 | 0.219 | 0.214 |
| 800 | 0.317 | 0.305 | 0.307 | 0.283 | 0.231 | 0.265 | 0.255 | 0.244 |
| 750 | 0.369 | 0.363 | 0.360 | 0.330 | 0.273 | 0.315 | 0.301 | 0.283 |
| 700 | 0.440 | 0.435 | 0.428 | 0.387 | 0.325 | 0.378 | 0.357 | 0.329 |
| 650 | 0.524 | 0.519 | 0.509 | 0.453 | 0.384 | 0.462 | 0.422 | 0.384 |
| 600 | 0.621 | 0.615 | 0.601 | 0.537 | 0.469 | 0.563 | 0.509 | 0.446 |
| 550 | 0.732 | 0.821 | 0.711 | 0.685 | 0.601 | 0.680 | 0.660 | 0.549 |
| 500 | 0.856 | 1.114 | 0.970 | 0.868 | 0.764 | 0.812 | 0.846 | 0.686 |
| 450 | 1.154 | 1.743 | 1.291 | 1.090 | 0.968 | 1.108 | 1.066 | 0.850 |
| 400 | 1.566 | | 1.687 | 1.362 | 1.229 | 1.448 | 1.317 | 1.029 |
| 350 | 2.098 | | | | 1.529 | 1.482 | 1.573 | 1.228 |
| 300 | | | | | | | | 1.416 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 405.6 | 365.4 | | | | 317.8 | 354.4 | 390.4 |
| 900 | 391.6 | 350.7 | 360.4 | 325.8 | 325.2 | 312.6 | 338.4 | 401.4 |
| 850 | 365.7 | 327.9 | 340.8 | 324.2 | 316.0 | 303.9 | 324.8 | 377.2 |
| 800 | 339.8 | 305.1 | 319.7 | 322.7 | 306.8 | 291.8 | 311.1 | 353.0 |
| 750 | 313.9 | 288.1 | 303.3 | 311.4 | 293.4 | 279.7 | 296.7 | 336.8 |
| 700 | 301.0 | 272.4 | 290.0 | 297.1 | 278.4 | 268.0 | 282.1 | 322.0 |
| 650 | 289.1 | 256.7 | 276.7 | 282.8 | 263.4 | 257.7 | 267.5 | 307.1 |
| 600 | 277.3 | 241.0 | 263.3 | 268.2 | 249.7 | 247.5 | 253.0 | 292.3 |
| 550 | 265.4 | 200.9 | 249.1 | 252.4 | 237.9 | 237.2 | 239.2 | 280.5 |
| 500 | 253.5 | 153.8 | 215.0 | 236.7 | 226.0 | 226.9 | 225.3 | 269.6 |
| 450 | 214.8 | 359.7 | 185.1 | 225.2 | 216.6 | 218.0 | 239.8 | 258.7 |
| 400 | 169.4 | | 218.6 | 222.5 | 220.1 | 1116.4 | 269.4 | 286.1 |
| 350 | 184.2 | | | | 266.8 | 1814.5 | 321.5 | 326.5 |
| 300 | | | | | | | | 603.5 |
| LONG | -179.72 | -174.94 | -169.89 | -164.41 | -158.72 | -152.70 | -147.02 | -141.64 |
| LAT | 79.10 | 79.50 | 79.92 | 80.19 | 80.29 | 80.39 | 80.48 | 80.24 |
| QUAL | 22 | 32 | 22 | 22 | 21 | 21 | 23 | 21 |

PASS 3364 AT RESLUT, 63 6 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 181935 | 181952 | 182010 | 182029 | 182047 | 182103 | 182121 | 182137 |
| 1000 | 0.203 | 0.177 | 0.271 | 0.213 | 0.207 | 0.157 | 0.175 | 0.209 |
| 950 | 0.223 | 0.199 | 0.305 | 0.235 | 0.230 | 0.176 | 0.197 | 0.229 |
| 900 | 0.248 | 0.223 | 0.345 | 0.267 | 0.267 | 0.200 | 0.224 | 0.257 |
| 850 | 0.280 | 0.255 | 0.393 | 0.309 | 0.308 | 0.230 | 0.257 | 0.293 |
| 800 | 0.320 | 0.293 | 0.448 | 0.363 | 0.357 | 0.267 | 0.296 | 0.337 |
| 750 | 0.368 | 0.342 | 0.516 | 0.432 | 0.421 | 0.314 | 0.343 | 0.389 |
| 700 | 0.423 | 0.400 | 0.596 | 0.514 | 0.496 | 0.370 | 0.398 | 0.450 |
| 650 | 0.486 | 0.467 | 0.687 | 0.609 | 0.584 | 0.440 | 0.477 | 0.574 |
| 600 | 0.569 | 0.543 | 0.800 | 0.732 | 0.706 | 0.566 | 0.588 | 0.731 |
| 550 | 0.708 | 0.698 | 0.984 | 0.990 | 0.900 | 0.726 | 0.726 | 0.923 |
| 500 | 0.876 | 0.892 | 1.206 | 1.307 | 1.140 | 0.917 | 0.915 | 1.156 |
| 450 | 1.079 | 1.125 | 1.487 | 1.609 | 1.432 | 1.130 | 1.140 | 1.427 |
| 400 | 1.318 | 1.402 | 1.825 | 1.722 | 1.758 | 1.363 | 1.362 | 1.744 |
| 350 | 1.596 | 1.676 | 2.186 | | | 1.673 | | |
| 300 | 1.869 | | | | | 1.683 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 481.5 | 412.9 | 408.1 | 426.8 | 452.9 | 399.1 | 405.2 | 491.3 |
| 900 | 437.3 | 396.8 | 391.4 | 377.6 | 359.3 | 376.8 | 378.2 | 419.3 |
| 850 | 402.0 | 370.7 | 376.3 | 340.8 | 336.9 | 346.4 | 358.2 | 368.9 |
| 800 | 370.9 | 344.6 | 361.1 | 307.7 | 317.0 | 318.3 | 339.0 | 341.9 |
| 750 | 353.8 | 325.3 | 347.3 | 291.9 | 304.4 | 297.4 | 320.5 | 315.0 |
| 700 | 336.6 | 307.9 | 333.4 | 276.1 | 291.9 | 276.4 | 301.9 | 288.0 |
| 650 | 319.5 | 290.5 | 319.6 | 260.3 | 279.3 | 257.0 | 279.5 | 260.7 |
| 600 | 301.1 | 273.1 | 303.1 | 242.1 | 260.0 | 247.5 | 254.4 | 233.3 |
| 550 | 279.2 | 253.9 | 276.8 | 208.6 | 229.6 | 238.1 | 235.1 | 225.1 |
| 500 | 257.4 | 234.7 | 250.4 | 224.1 | 221.4 | 237.3 | 242.8 | 235.5 |
| 450 | 251.3 | 232.4 | 254.7 | 462.1 | 234.8 | 267.2 | 263.4 | 244.3 |
| 400 | 259.3 | 256.6 | 264.3 | | 255.9 | 332.6 | 348.5 | 472.0 |
| 350 | 352.0 | 534.3 | 366.4 | | | 542.1 | | |
| 300 | 598.9 | | | | | | | |
| LONG | -135.94 | -130.55 | -125.55 | -120.87 | -116.43 | -112.70 | -109.55 | -106.75 |
| LAT | 79.99 | 79.75 | 79.34 | 78.78 | 78.25 | 77.75 | 77.05 | 76.42 |
| QUAL | 22 | 22 | 32 | 22 | 33 | 21 | 23 | 22 |

PASS 3364 AT RESLUT, 63 6 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 182156 | 182232 | 182249 | 182325 | 182416 | 182451 | 182508 | 182544 |
| 1000 | 0.205 | 0.216 | 0.233 | 0.248 | 0.214 | 0.222 | 0.203 | 0.203 |
| 950 | 0.232 | 0.235 | 0.248 | 0.267 | 0.235 | 0.239 | 0.225 | 0.222 |
| 900 | 0.258 | 0.261 | 0.267 | 0.290 | 0.261 | 0.258 | 0.249 | 0.246 |
| 850 | 0.290 | 0.300 | 0.295 | 0.320 | 0.294 | 0.281 | 0.278 | 0.281 |
| 800 | 0.329 | 0.342 | 0.336 | 0.353 | 0.330 | 0.318 | 0.317 | 0.324 |
| 750 | 0.382 | 0.386 | 0.389 | 0.394 | 0.370 | 0.358 | 0.365 | 0.377 |
| 700 | 0.458 | 0.444 | 0.450 | 0.453 | 0.419 | 0.403 | 0.420 | 0.447 |
| 650 | 0.551 | 0.528 | 0.524 | 0.527 | 0.477 | 0.454 | 0.489 | 0.546 |
| 600 | 0.660 | 0.633 | 0.632 | 0.627 | 0.551 | 0.537 | 0.578 | 0.670 |
| 550 | 0.803 | 0.766 | 0.766 | 0.751 | 0.638 | 0.639 | 0.688 | 0.842 |
| 500 | 1.011 | 0.935 | 0.936 | 0.950 | 0.763 | 0.765 | 0.854 | 1.088 |
| 450 | 1.297 | 1.162 | 1.155 | 1.219 | 0.925 | 0.920 | 1.066 | 1.430 |
| 400 | 1.609 | 1.413 | 1.442 | | 1.143 | 1.142 | 1.337 | 1.833 |
| 350 | 1.895 | | | | 1.430 | 1.442 | 1.665 | |
| 300 | | | | | | 1.849 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 497.4 | 543.8 | 721.0 | 666.8 | 490.8 | 665.0 | 518.1 | 492.8 |
| 900 | 450.6 | 435.9 | 579.6 | 569.2 | 448.5 | 590.0 | 464.3 | 427.9 |
| 850 | 404.1 | 375.5 | 459.8 | 500.1 | 433.3 | 509.0 | 418.9 | 384.6 |
| 800 | 357.1 | 364.9 | 396.5 | 455.0 | 423.3 | 416.5 | 385.5 | 343.5 |
| 750 | 318.1 | 354.3 | 347.1 | 410.1 | 414.5 | 396.5 | 355.7 | 305.0 |
| 700 | 286.2 | 334.8 | 324.0 | 365.5 | 391.6 | 380.2 | 334.5 | 268.2 |
| 650 | 269.7 | 302.6 | 301.3 | 321.0 | 367.3 | 361.3 | 312.6 | 254.7 |
| 600 | 259.4 | 274.4 | 281.0 | 284.7 | 339.0 | 325.6 | 289.5 | 241.3 |
| 550 | 242.6 | 258.8 | 260.9 | 249.1 | 310.5 | 289.9 | 266.5 | 211.8 |
| 500 | 215.7 | 248.6 | 245.8 | 219.8 | 282.5 | 271.7 | 244.6 | 191.6 |
| 450 | 223.4 | 245.4 | 238.8 | 216.0 | 254.6 | 252.8 | 227.9 | 195.1 |
| 400 | 267.8 | 296.5 | 239.1 | | 235.8 | 229.8 | 224.3 | 253.6 |
| 350 | 388.1 | | | | 228.2 | 212.1 | 250.1 | |
| 300 | | | | | | 244.5 | | |
| LONG | -103.42 | -98.78 | -96.69 | -93.14 | -89.01 | -86.73 | -85.74 | -83.95 |
| LAT | 75.68 | 74.07 | 73.31 | 71.59 | 69.07 | 67.29 | 66.41 | 64.53 |
| QUAL | 31 | 33 | 33 | 33 | 33 | 31 | 33 | 32 |

PASS 3364 AT RESLUT, 63 6 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 182602 |
| 1000 | 0.158 |
| 950 | 0.177 |
| 900 | 0.203 |
| 850 | 0.237 |
| 800 | 0.277 |
| 750 | 0.324 |
| 700 | 0.389 |
| 650 | 0.475 |
| 600 | 0.585 |
| 550 | 0.721 |
| 500 | 0.890 |
| 450 | 1.116 |
| 400 | 1.427 |
| 350 | |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 389.9 |
| 900 | 353.2 |
| 850 | 320.4 |
| 800 | 309.4 |
| 750 | 299.7 |
| 700 | 262.1 |
| 650 | 245.9 |
| 600 | 245.7 |
| 550 | 239.7 |
| 500 | 227.9 |
| 450 | 214.9 |
| 400 | 189.7 |
| 350 | |
| 300 | |

| | |
|---|---|
| LONG | -83.08 |
| LAT | 63.58 |
| QUAL | 33 |

PASS 3364 AT QUITUE, 63 6 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 184218 | 184254 | 184330 | 184405 | 184440 | 184515 | 184550 | 184625 |
| 1000 | 0.335 | 0.360 | 0.378 | 0.397 | 0.425 | 0.434 | 0.431 | 0.435 |
| 950 | 0.392 | 0.415 | 0.442 | 0.459 | 0.497 | 0.503 | 0.491 | 0.489 |
| 900 | 0.455 | 0.480 | 0.522 | 0.540 | 0.587 | 0.592 | 0.571 | 0.560 |
| 850 | 0.532 | 0.560 | 0.620 | 0.642 | 0.696 | 0.702 | 0.673 | 0.657 |
| 800 | 0.633 | 0.665 | 0.740 | 0.766 | 0.830 | 0.833 | 0.797 | 0.813 |
| 750 | 0.775 | 0.814 | 0.891 | 0.931 | 0.995 | 1.013 | 0.955 | 1.025 |
| 700 | 0.961 | 1.025 | 1.133 | 1.188 | 1.256 | 1.271 | 1.241 | 1.320 |
| 650 | 1.236 | 1.325 | 1.488 | 1.570 | 1.673 | 1.668 | 1.709 | 1.793 |
| 600 | 1.676 | 1.804 | 2.051 | 2.192 | 2.338 | 2.369 | 2.454 | 2.511 |
| 550 | 2.408 | 2.612 | 3.023 | 3.197 | 3.416 | 3.590 | 3.624 | 3.637 |
| 500 | 3.712 | 4.061 | 4.786 | 5.057 | 5.391 | 5.625 | 5.506 | 5.384 |
| 450 | 6.042 | 6.810 | 7.779 | 7.988 | 8.302 | 8.265 | 7.829 | 7.380 |
| 400 | 9.618 | 10.475 | | | 10.976 | | 9.339 | |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 326.1 | 351.2 | 310.9 | 323.5 | 310.2 | 328.3 | 349.3 | 392.4 |
| 900 | 322.3 | 325.2 | 296.3 | 302.1 | 298.6 | 304.1 | 317.3 | 332.8 |
| 850 | 295.2 | 302.1 | 281.1 | 283.4 | 285.7 | 287.2 | 294.4 | 281.3 |
| 800 | 271.1 | 273.9 | 265.6 | 265.7 | 270.3 | 271.9 | 273.5 | 247.5 |
| 750 | 250.0 | 236.5 | 244.9 | 238.9 | 248.7 | 244.0 | 245.9 | 213.9 |
| 700 | 223.1 | 209.4 | 205.9 | 194.0 | 197.3 | 204.3 | 174.2 | 182.5 |
| 650 | 182.1 | 183.0 | 173.6 | 168.9 | 169.5 | 170.6 | 151.6 | 158.7 |
| 600 | 157.2 | 152.5 | 141.6 | 142.0 | 139.4 | 131.4 | 134.7 | 143.7 |
| 550 | 128.6 | 126.6 | 120.3 | 119.4 | 121.0 | 114.8 | 122.1 | 129.0 |
| 500 | 108.6 | 103.5 | 98.9 | 105.7 | 105.7 | 113.5 | 124.3 | 133.5 |
| 450 | 97.8 | 103.2 | 109.9 | 116.4 | 132.1 | 153.8 | 195.1 | 265.9 |
| 400 | 128.8 | 143.3 | | | 449.8 | | 457.8 | |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -69.09 | -68.90 | -68.71 | -68.52 | -68.34 | -68.15 | -67.97 | -67.79 |
| LAT | 9.45 | 7.42 | 5.39 | 3.43 | 1.46 | -0.51 | -2.48 | -4.44 |
| QUAL | 23 | 32 | 23 | 23 | 22 | 23 | 22 | 22 |

PASS 3364 AT QUITOE, 63 6 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 184700 | 184735 | 184810 | 184845 | 184920 | 184955 | 185030 | 185058 |
| 1000 | 0.390 | 0.335 | 0.356 | 0.332 | 0.323 | 0.294 | 0.306 | 0.302 |
| 950 | 0.445 | 0.382 | 0.406 | 0.381 | 0.369 | 0.333 | 0.339 | 0.333 |
| 900 | 0.514 | 0.450 | 0.478 | 0.446 | 0.428 | 0.384 | 0.382 | 0.372 |
| 850 | 0.602 | 0.534 | 0.564 | 0.528 | 0.505 | 0.449 | 0.444 | 0.438 |
| 800 | 0.748 | 0.647 | 0.695 | 0.651 | 0.622 | 0.528 | 0.550 | 0.548 |
| 750 | 0.959 | 0.834 | 0.891 | 0.848 | 0.785 | 0.645 | 0.696 | 0.691 |
| 700 | 1.248 | 1.089 | 1.155 | 1.111 | 1.006 | 0.877 | 0.891 | 0.864 |
| 650 | 1.697 | 1.478 | 1.536 | 1.485 | 1.341 | 1.181 | 1.206 | 1.166 |
| 600 | 2.402 | 2.075 | 2.089 | 2.025 | 1.832 | 1.624 | 1.661 | 1.636 |
| 550 | 3.482 | 2.965 | 2.858 | 2.772 | 2.546 | 2.267 | 2.335 | 2.362 |
| 500 | 5.018 | 4.090 | 3.859 | 3.719 | 3.507 | 3.155 | 3.293 | 3.410 |
| 450 | 6.549 | 5.260 | 4.727 | 4.647 | 4.631 | 4.250 | 4.462 | 4.628 |
| 400 | | 6.141 | | 5.299 | | 5.646 | 5.661 | 5.968 |
| 350 | | | | | | | 6.962 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 370.2 | 330.1 | 351.6 | 336.9 | 344.3 | 363.3 | 435.9 | 472.8 |
| 900 | 321.5 | 291.8 | 302.2 | 295.8 | 315.5 | 325.4 | 366.8 | 372.9 |
| 850 | 270.7 | 266.7 | 268.5 | 264.6 | 278.8 | 298.9 | 304.0 | 300.4 |
| 800 | 235.5 | 240.3 | 237.2 | 234.1 | 222.6 | 272.3 | 251.7 | 247.7 |
| 750 | 204.0 | 210.0 | 207.6 | 204.5 | 211.4 | 239.1 | 211.6 | 216.5 |
| 700 | 175.9 | 179.2 | 186.5 | 181.0 | 194.5 | 186.3 | 188.1 | 198.5 |
| 650 | 158.4 | 156.0 | 172.3 | 169.2 | 167.9 | 163.3 | 162.7 | 160.9 |
| 600 | 139.7 | 143.2 | 160.2 | 161.9 | 159.2 | 154.5 | 153.9 | 144.0 |
| 550 | 132.4 | 145.8 | 161.5 | 163.4 | 152.9 | 150.2 | 145.5 | 135.1 |
| 500 | 157.8 | 174.4 | 198.3 | 196.1 | 167.7 | 159.3 | 152.8 | 148.6 |
| 450 | 288.0 | 251.6 | 343.0 | 300.7 | 207.5 | 173.2 | 187.9 | 179.3 |
| 400 | | 507.5 | | 493.7 | | 207.1 | 219.4 | 218.7 |
| 350 | | | | | | | 317.2 | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -67.60 | -67.41 | -67.22 | -67.03 | -66.83 | -66.62 | -66.40 | -66.23 |
| LAT | -6.41 | -8.38 | -10.34 | -12.31 | -14.27 | -16.23 | -18.19 | -19.76 |
| QUAL | 22 | 32 | 22 | 22 | 23 | 33 | 23 | 23 |

PASS 3364 AT AGASTA, 63 6 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 185012 | 185047 | 185123 | 185236 | 185312 | 185347 | 185457 |
| 1000 | 0.324 | 0.326 | 0.315 | 0.285 | 0.256 | 0.249 | 0.182 |
| 950 | 0.359 | 0.359 | 0.343 | 0.316 | 0.278 | 0.272 | 0.201 |
| 900 | 0.414 | 0.406 | 0.383 | 0.350 | 0.306 | 0.297 | 0.221 |
| 850 | 0.495 | 0.470 | 0.436 | 0.388 | 0.343 | 0.324 | 0.246 |
| 800 | 0.598 | 0.567 | 0.504 | 0.434 | 0.392 | 0.362 | 0.281 |
| 750 | 0.760 | 0.711 | 0.586 | 0.496 | 0.461 | 0.422 | 0.324 |
| 700 | 0.991 | 0.915 | 0.776 | 0.589 | 0.549 | 0.529 | 0.377 |
| 650 | 1.319 | 1.226 | 1.059 | 0.772 | 0.697 | 0.673 | 0.453 |
| 600 | 1.820 | 1.700 | 1.468 | 1.062 | 0.962 | 0.854 | 0.544 |
| 550 | 2.491 | 2.433 | 2.145 | 1.535 | 1.372 | 1.159 | 0.709 |
| 500 | 3.390 | 3.435 | 3.203 | 2.443 | 2.085 | 1.678 | 0.985 |
| 450 | 4.464 | 4.593 | 4.525 | 3.917 | 3.295 | 2.535 | 1.436 |
| 400 | 5.674 | 5.858 | 5.929 | 5.689 | 4.958 | 3.944 | 2.064 |
| 350 | 6.923 | 7.157 | 7.364 | 7.528 | 6.968 | 5.793 | 3.046 |
| 300 | | | | | | 8.342 | 4.997 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 411.6 | 439.7 | 510.8 | 474.3 | 542.7 | 568.2 | 507.9 |
| 900 | 340.7 | 376.8 | 414.8 | 482.7 | 480.6 | 571.9 | 459.2 |
| 850 | 282.4 | 318.1 | 356.9 | 464.2 | 409.6 | 494.8 | 417.2 |
| 800 | 233.9 | 252.0 | 314.2 | 398.3 | 331.4 | 388.0 | 385.1 |
| 750 | 208.1 | 211.6 | 271.5 | 346.9 | 293.5 | 297.5 | 353.1 |
| 700 | 185.9 | 189.6 | 206.5 | 229.1 | 255.5 | 249.2 | 320.3 |
| 650 | 167.3 | 166.8 | 159.9 | 181.1 | 207.3 | 210.9 | 279.4 |
| 600 | 158.4 | 146.6 | 142.4 | 152.7 | 152.0 | 190.0 | 238.4 |
| 550 | 161.2 | 141.7 | 128.3 | 121.0 | 131.8 | 153.4 | 189.4 |
| 500 | 169.7 | 156.9 | 132.4 | 106.0 | 114.5 | 129.8 | 145.8 |
| 450 | 196.6 | 189.7 | 164.3 | 116.8 | 111.6 | 115.9 | 136.2 |
| 400 | 224.0 | 225.4 | 207.9 | 153.1 | 134.3 | 123.8 | 136.2 |
| 350 | 446.1 | 297.1 | 263.1 | 215.1 | 173.8 | 132.3 | 117.2 |
| 300 | | | | | | 141.3 | 93.6 |
| LONG | -66.52 | -66.30 | -66.07 | -65.56 | -65.30 | -65.02 | -64.43 |
| LAT | -17.18 | -19.14 | -21.15 | -25.23 | -27.24 | -29.19 | -33.08 |
| QUAL | 22 | 23 | 23 | 23 | 23 | 23 | 33 |

PASS 3364 AT AGASTA, 63 6 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 185532 | 185607 |
| 1000 | 0.157 | 0.138 |
| 950 | 0.171 | 0.148 |
| 900 | 0.185 | 0.160 |
| 850 | 0.201 | 0.176 |
| 800 | 0.232 | 0.194 |
| 750 | 0.274 | 0.214 |
| 700 | 0.323 | 0.253 |
| 650 | 0.388 | 0.306 |
| 600 | 0.487 | 0.378 |
| 550 | 0.626 | 0.519 |
| 500 | 0.858 | 0.719 |
| 450 | 1.203 | 1.001 |
| 400 | 1.719 | 1.423 |
| 350 | 2.631 | 2.096 |
| 300 | 4.503 | 3.398 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 627.1 | 656.0 |
| 900 | 565.2 | 593.4 |
| 850 | 469.7 | 537.5 |
| 800 | 389.8 | 462.9 |
| 750 | 313.4 | 386.1 |
| 700 | 281.4 | 328.9 |
| 650 | 249.6 | 272.6 |
| 600 | 218.4 | 217.9 |
| 550 | 188.2 | 173.3 |
| 500 | 161.4 | 154.6 |
| 450 | 145.0 | 148.3 |
| 400 | 131.4 | 137.2 |
| 350 | 109.6 | 116.9 |
| 300 | 79.1 | 94.9 |
| LONG | -63.98 | -63.57 |
| LAT | -35.02 | -36.96 |
| QUAL | 33 | 33 |

PASS 3364 AT SOLANT, 63 6 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 185312 | 185347 | 185422 | 185550 | 185625 |
| 1000 | 0.256 | 0.262 | 0.178 | 0.130 | 0.110 |
| 950 | 0.282 | 0.294 | 0.200 | 0.141 | 0.118 |
| 900 | 0.316 | 0.322 | 0.223 | 0.153 | 0.129 |
| 850 | 0.352 | 0.352 | 0.249 | 0.167 | 0.142 |
| 800 | 0.395 | 0.388 | 0.280 | 0.185 | 0.159 |
| 750 | 0.451 | 0.443 | 0.318 | 0.211 | 0.178 |
| 700 | 0.521 | 0.533 | 0.364 | 0.246 | 0.203 |
| 650 | 0.623 | 0.669 | 0.432 | 0.310 | 0.235 |
| 600 | 0.794 | 0.866 | 0.523 | 0.399 | 0.302 |
| 550 | 1.139 | 1.195 | 0.703 | 0.529 | 0.399 |
| 500 | 1.803 | 1.768 | 0.998 | 0.736 | 0.561 |
| 450 | 2.962 | 3.051 | 1.470 | 1.034 | 0.842 |
| 400 | 4.695 | 4.053 | 2.198 | 1.462 | 1.204 |
| 350 | 6.715 | 6.059 | 3.447 | 2.146 | 1.761 |
| 300 | | 8.878 | 5.028 | 3.538 | 2.745 |

| HEIGHT | SCALE HEIGHT, KM | | | | |
|---|---|---|---|---|---|
| 950 | 522.4 | 526.7 | 449.8 | 606.2 | 587.6 |
| 900 | 464.7 | 558.5 | 445.0 | 561.6 | 526.5 |
| 850 | 440.2 | 507.4 | 440.2 | 506.1 | 493.5 |
| 800 | 411.4 | 444.1 | 414.3 | 447.9 | 460.5 |
| 750 | 374.0 | 335.2 | 372.6 | 363.0 | 427.8 |
| 700 | 313.5 | 256.4 | 325.0 | 284.8 | 395.6 |
| 650 | 244.7 | 208.6 | 275.1 | 229.8 | 257.7 |
| 600 | 181.8 | 183.9 | 224.9 | 190.3 | 213.3 |
| 550 | 126.7 | 141.4 | 168.5 | 166.5 | 174.4 |
| 500 | 105.5 | 127.8 | 133.7 | 153.4 | 122.4 |
| 450 | 100.2 | 119.1 | 126.6 | 148.5 | 132.5 |
| 400 | 128.5 | 122.8 | 115.0 | 139.5 | 138.0 |
| 350 | 163.8 | 126.9 | 110.4 | 117.0 | 124.0 |
| 300 | | 137.0 | 93.7 | 81.9 | 106.9 |

| | | | | | |
|---|---|---|---|---|---|
| LONG | -65.30 | -65.02 | -64.73 | -63.92 | -63.55 |
| LAT | -27.24 | -29.19 | -31.13 | -36.02 | -37.95 |
| QUAL | 33 | 33 | 33 | 33 | 33 |

PASS 3378 AT RESLUT, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 185414 | 185532 | 185549 | 185607 | 185624 | 185642 | 185700 | 185717 |
| 1000 | 0.200 | 0.200 | 0.195 | 0.214 | 0.204 | 0.211 | 0.220 | 0.200 |
| 950 | 0.218 | 0.216 | 0.230 | 0.247 | 0.233 | 0.241 | 0.249 | 0.214 |
| 900 | 0.239 | 0.239 | 0.271 | 0.286 | 0.269 | 0.274 | 0.284 | 0.235 |
| 850 | 0.266 | 0.274 | 0.312 | 0.328 | 0.313 | 0.313 | 0.326 | 0.270 |
| 800 | 0.306 | 0.315 | 0.359 | 0.376 | 0.366 | 0.360 | 0.374 | 0.327 |
| 750 | 0.360 | 0.363 | 0.421 | 0.440 | 0.429 | 0.421 | 0.437 | 0.381 |
| 700 | 0.423 | 0.434 | 0.499 | 0.524 | 0.510 | 0.502 | 0.528 | 0.454 |
| 650 | 0.510 | 0.527 | 0.604 | 0.634 | 0.619 | 0.618 | 0.654 | 0.544 |
| 600 | 0.639 | 0.651 | 0.746 | 0.784 | 0.767 | 0.766 | 0.817 | 0.675 |
| 550 | 0.804 | 0.803 | 0.939 | 0.974 | 0.964 | 0.965 | 1.026 | 0.847 |
| 500 | 1.015 | 1.027 | 1.192 | 1.222 | 1.221 | 1.236 | 1.307 | 1.068 |
| 450 | 1.278 | 1.303 | 1.521 | 1.552 | | 1.581 | 1.654 | 1.348 |
| 400 | 1.599 | 1.617 | 1.951 | 1.980 | | 1.993 | 2.041 | 1.724 |
| 350 | 1.912 | | 2.470 | | | 2.394 | 2.416 | 2.187 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 567.5 | 564.8 | | | 355.1 | 383.7 | 383.0 | 618.2 |
| 900 | 488.5 | 449.3 | 331.3 | 352.7 | 342.2 | 378.4 | 372.8 | 482.6 |
| 850 | 422.0 | 393.4 | 341.4 | 366.6 | 326.9 | 367.7 | 367.1 | 366.9 |
| 800 | 353.9 | 349.7 | 327.6 | 329.0 | 312.2 | 335.1 | 341.3 | 298.0 |
| 750 | 303.3 | 313.7 | 305.7 | 304.4 | 300.4 | 295.7 | 285.7 | 294.1 |
| 700 | 278.8 | 278.2 | 282.4 | 282.5 | 273.2 | 264.0 | 258.8 | 279.2 |
| 650 | 256.3 | 251.5 | 252.9 | 261.7 | 247.0 | 247.7 | 242.6 | 263.0 |
| 600 | 235.8 | 238.9 | 231.5 | 242.9 | 231.1 | 230.9 | 227.3 | 232.3 |
| 550 | 222.3 | 226.6 | 216.0 | 227.6 | 219.0 | 209.1 | 214.5 | 219.0 |
| 500 | 220.7 | 221.6 | 210.5 | 217.2 | 207.0 | 208.5 | 214.0 | 213.8 |
| 450 | 227.6 | 225.2 | 205.1 | 210.5 | | 216.1 | 229.6 | 211.5 |
| 400 | 254.5 | 251.5 | 208.7 | 200.8 | | 243.2 | 271.3 | 209.7 |
| 350 | 348.3 | | 257.9 | | | 332.1 | 346.5 | 250.2 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | 163.36 | -174.67 | -169.21 | -163.35 | -157.72 | -151.76 | -145.80 | -141.14 |
| LAT | 78.46 | 80.15 | 80.36 | 80.45 | 80.32 | 80.19 | 80.06 | 79.64 |
| QUAL | 31 | 32 | 32 | 33 | 33 | 33 | 31 | 32 |

PASS 3378 AT RESLUT, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 185752 | 185810 | 185827 | 185844 | 185902 | 185920 | 185955 | 190013 |
| 1000 | 0.179 | 0.204 | 0.230 | 0.227 | 0.219 | 0.230 | 0.187 | 0.209 |
| 950 | 0.202 | 0.220 | 0.260 | 0.251 | 0.252 | 0.253 | 0.210 | 0.229 |
| 900 | 0.226 | 0.238 | 0.296 | 0.282 | 0.296 | 0.284 | 0.234 | 0.252 |
| 850 | 0.255 | 0.265 | 0.339 | 0.322 | 0.340 | 0.327 | 0.263 | 0.283 |
| 800 | 0.293 | 0.312 | 0.387 | 0.371 | 0.390 | 0.381 | 0.302 | 0.324 |
| 750 | 0.346 | 0.368 | 0.444 | 0.429 | 0.452 | 0.442 | 0.354 | 0.378 |
| 700 | 0.410 | 0.427 | 0.516 | 0.505 | 0.537 | 0.526 | 0.418 | 0.446 |
| 650 | 0.469 | 0.500 | 0.609 | 0.614 | 0.650 | 0.642 | 0.498 | 0.539 |
| 600 | 0.597 | 0.619 | 0.738 | 0.752 | 0.787 | 0.790 | 0.616 | 0.664 |
| 550 | 0.730 | 0.769 | 0.906 | 0.922 | 0.954 | 0.975 | 0.765 | 0.819 |
| 500 | 0.903 | 0.954 | 1.132 | 1.152 | 1.196 | 1.229 | 0.965 | 1.046 |
| 450 | 1.126 | 1.189 | 1.415 | 1.457 | 1.504 | 1.530 | 1.228 | 1.329 |
| 400 | 1.419 | 1.524 | 1.754 | 1.838 | 1.880 | 1.879 | 1.557 | 1.686 |
| 350 | 1.813 | 1.870 | 2.123 | 2.270 | 2.316 | | 1.939 | |
| 300 | 2.297 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 445.8 | 656.8 | 386.2 | 445.2 | 343.0 | 459.8 | 435.2 | 527.2 |
| 900 | 423.6 | 528.9 | 378.1 | 401.4 | 347.6 | 399.3 | 431.0 | 467.0 |
| 850 | 382.5 | 419.5 | 373.2 | 377.2 | 357.8 | 357.2 | 393.0 | 410.3 |
| 800 | 340.7 | 355.2 | 366.2 | 351.0 | 337.7 | 325.0 | 350.9 | 356.7 |
| 750 | 298.8 | 314.0 | 344.6 | 316.7 | 312.8 | 301.5 | 308.2 | 310.7 |
| 700 | 282.4 | 299.1 | 316.3 | 283.4 | 291.5 | 280.6 | 284.7 | 278.0 |
| 650 | 268.0 | 281.9 | 283.7 | 264.3 | 272.3 | 261.2 | 262.8 | 257.2 |
| 600 | 257.8 | 257.3 | 257.8 | 248.0 | 255.9 | 243.4 | 246.9 | 243.5 |
| 550 | 247.2 | 235.4 | 238.3 | 236.5 | 241.1 | 228.4 | 230.8 | 230.0 |
| 500 | 234.4 | 227.2 | 230.3 | 222.4 | 229.7 | 226.1 | 211.7 | 219.8 |
| 450 | 222.6 | 222.6 | 232.1 | 217.9 | 224.3 | 236.8 | 213.5 | 216.5 |
| 400 | 212.7 | 224.9 | 252.3 | 226.9 | 233.3 | 261.1 | 223.7 | 235.9 |
| 350 | 208.8 | 305.2 | 332.4 | 245.3 | 305.0 | | 265.3 | |
| 300 | 214.5 | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -131.54 | -127.36 | -123.98 | -120.60 | -117.14 | -114.63 | -109.75 | -107.76 |
| LAT | 78.79 | 78.23 | 77.61 | 76.99 | 76.32 | 75.54 | 74.02 | 73.18 |
| QUAL | 33 | 33 | 31 | 31 | 32 | 33 | 31 | 32 |

PASS 3378 AT RESLUT, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 190030 | 190048 | 190106 | 190123 | 190140 | 190216 | 190233 | 190250 |
| 1000 | 0.216 | 0.213 | 0.208 | 0.195 | 0.175 | 0.149 | 0.123 | 0.119 |
| 950 | 0.233 | 0.228 | 0.228 | 0.208 | 0.195 | 0.171 | 0.145 | 0.142 |
| 900 | 0.257 | 0.242 | 0.256 | 0.229 | 0.218 | 0.195 | 0.170 | 0.165 |
| 850 | 0.290 | 0.261 | 0.292 | 0.257 | 0.246 | 0.223 | 0.199 | 0.190 |
| 800 | 0.331 | 0.328 | 0.335 | 0.293 | 0.282 | 0.257 | 0.236 | 0.225 |
| 750 | 0.379 | 0.380 | 0.382 | 0.337 | 0.324 | 0.302 | 0.280 | 0.267 |
| 700 | 0.451 | 0.418 | 0.447 | 0.395 | 0.380 | 0.359 | 0.336 | 0.316 |
| 650 | 0.539 | 0.507 | 0.533 | 0.470 | 0.457 | 0.437 | 0.409 | 0.381 |
| 600 | 0.649 | 0.622 | 0.643 | 0.575 | 0.561 | 0.544 | 0.504 | 0.467 |
| 550 | 0.789 | 0.768 | 0.783 | 0.710 | 0.706 | 0.680 | 0.639 | 0.587 |
| 500 | 0.966 | 0.968 | 0.964 | 0.903 | 0.904 | 0.862 | 0.812 | 0.756 |
| 450 | 1.248 | 1.256 | 1.218 | 1.159 | 1.176 | 1.104 | 1.052 | 0.987 |
| 400 | 1.581 | 1.671 | 1.562 | 1.502 | 1.557 | 1.434 | 1.373 | 1.296 |
| 350 | | 2.391 | | | 2.057 | 1.871 | 1.763 | 1.718 |
| 300 | | 3.399 | | | | 2.408 | | 2.210 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 582.9 | 816.1 | 458.8 | 616.1 | 454.6 | 373.3 | 320.7 | |
| 900 | 476.0 | 667.7 | 413.3 | 487.1 | 424.7 | 372.1 | 310.6 | 333.5 |
| 850 | 402.7 | 513.3 | 382.4 | 420.3 | 391.5 | 354.5 | 304.5 | 318.2 |
| 800 | 368.4 | 314.1 | 362.8 | 385.5 | 370.9 | 333.5 | 294.7 | 305.0 |
| 750 | 333.9 | 325.3 | 346.0 | 328.1 | 333.6 | 303.3 | 279.8 | 292.7 |
| 700 | 295.9 | 337.7 | 302.6 | 296.4 | 288.3 | 271.2 | 261.2 | 279.7 |
| 650 | 273.3 | 279.0 | 279.2 | 271.6 | 263.3 | 242.2 | 244.6 | 256.7 |
| 600 | 257.4 | 242.0 | 266.8 | 249.9 | 239.4 | 230.7 | 229.7 | 234.5 |
| 550 | 242.6 | 223.0 | 250.8 | 228.7 | 217.1 | 222.1 | 218.9 | 213.6 |
| 500 | 225.8 | 205.5 | 229.8 | 211.5 | 199.8 | 210.3 | 206.2 | 198.0 |
| 450 | 215.8 | 186.9 | 211.5 | 198.4 | 186.8 | 197.3 | 190.7 | 186.9 |
| 400 | 218.4 | 162.4 | 226.9 | 188.6 | 182.7 | 190.5 | 197.0 | 183.3 |
| 350 | | 136.6 | | | 183.8 | 195.7 | 205.9 | 187.8 |
| 300 | | 187.6 | | | | 234.8 | | 209.2 |
| LONG | -106.08 | -104.30 | -102.68 | -101.45 | -100.22 | -97.90 | -96.97 | -96.04 |
| LAT | 72.37 | 71.52 | 70.65 | 69.80 | 68.94 | 67.11 | 66.23 | 65.35 |
| QUAL | 33 | 33 | 33 | 23 | 33 | 32 | 33 | 33 |

PASS 3378 AT RESLUT, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 190308 | 190326 | 190344 | 190401 |
| 1000 | 0.113 | 0.115 | 0.134 | 0.121 |
| 950 | 0.131 | 0.134 | 0.156 | 0.143 |
| 900 | 0.153 | 0.156 | 0.182 | 0.167 |
| 850 | 0.180 | 0.185 | 0.213 | 0.194 |
| 800 | 0.212 | 0.218 | 0.250 | 0.226 |
| 750 | 0.247 | 0.257 | 0.294 | 0.266 |
| 700 | 0.294 | 0.307 | 0.351 | 0.321 |
| 650 | 0.359 | 0.374 | 0.435 | 0.397 |
| 600 | 0.451 | 0.464 | 0.549 | 0.500 |
| 550 | 0.584 | 0.588 | 0.701 | 0.637 |
| 500 | 0.765 | 0.763 | 0.913 | 0.823 |
| 450 | 1.011 | 1.015 | 1.210 | 1.087 |
| 400 | 1.325 | 1.362 | 1.595 | 1.439 |
| 350 | 1.744 | 1.800 | 2.070 | 1.871 |
| 300 | 2.327 | 2.319 | | |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 329.0 | 325.9 | 327.6 | 317.7 |
| 900 | 311.4 | 310.2 | 320.0 | 326.7 |
| 850 | 309.2 | 304.9 | 313.6 | 324.8 |
| 800 | 306.7 | 298.7 | 307.8 | 311.7 |
| 750 | 303.9 | 291.6 | 302.4 | 287.4 |
| 700 | 269.4 | 265.9 | 245.1 | 247.8 |
| 650 | 236.1 | 240.5 | 229.5 | 228.2 |
| 600 | 210.8 | 223.7 | 214.5 | 214.8 |
| 550 | 197.5 | 207.2 | 200.9 | 206.0 |
| 500 | 189.4 | 190.8 | 188.6 | 192.6 |
| 450 | 186.0 | 174.0 | 181.4 | 180.9 |
| 400 | 183.2 | 175.2 | 187.5 | 186.6 |
| 350 | 178.0 | 187.1 | 200.2 | 197.1 |
| 300 | 179.0 | 260.5 | | |
| LONG | -95.16 | -94.40 | -93.64 | -92.94 |
| LAT | 64.41 | 63.45 | 62.50 | 61.60 |
| QUAL | 33 | 31 | 12 | 22 |

PASS 3378 AT OTTAWA, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 190531 | 190606 | 190642 | 190717 | 190809 | 190845 | 190920 | 191021 |
| 1000 | 0.150 | 0.143 | 0.153 | 0.140 | 0.145 | 0.158 | 0.157 | 0.162 |
| 950 | 0.166 | 0.161 | 0.170 | 0.161 | 0.163 | 0.175 | 0.173 | 0.178 |
| 900 | 0.186 | 0.182 | 0.190 | 0.184 | 0.186 | 0.196 | 0.194 | 0.199 |
| 850 | 0.211 | 0.208 | 0.214 | 0.211 | 0.211 | 0.220 | 0.219 | 0.224 |
| 800 | 0.242 | 0.239 | 0.245 | 0.243 | 0.240 | 0.250 | 0.251 | 0.256 |
| 750 | 0.281 | 0.277 | 0.284 | 0.282 | 0.276 | 0.287 | 0.291 | 0.297 |
| 700 | 0.331 | 0.327 | 0.334 | 0.330 | 0.321 | 0.335 | 0.342 | 0.347 |
| 650 | 0.397 | 0.391 | 0.399 | 0.394 | 0.384 | 0.398 | 0.409 | 0.417 |
| 600 | 0.491 | 0.485 | 0.493 | 0.487 | 0.471 | 0.491 | 0.505 | 0.511 |
| 550 | 0.609 | 0.603 | 0.613 | 0.610 | 0.585 | 0.616 | 0.629 | 0.643 |
| 500 | 0.784 | 0.772 | 0.785 | 0.780 | 0.743 | 0.796 | 0.807 | 0.833 |
| 450 | 1.023 | 1.006 | 1.025 | 1.014 | 0.961 | 1.041 | 1.054 | 1.100 |
| 400 | 1.355 | 1.339 | 1.367 | 1.351 | 1.284 | 1.381 | 1.409 | 1.487 |
| 350 | 1.809 | 1.804 | | 1.822 | 1.727 | 1.847 | 1.876 | 2.044 |
| 300 | 2.399 | 2.426 | | 2.435 | 2.320 | 2.498 | 2.462 | 2.769 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 448.4 | 404.1 | 449.4 | 359.7 | 409.6 | 458.9 | 458.8 | 463.5 |
| 900 | 413.5 | 392.8 | 426.1 | 367.0 | 392.2 | 432.5 | 423.9 | 430.5 |
| 850 | 380.5 | 377.9 | 396.9 | 361.7 | 385.5 | 410.7 | 398.0 | 403.2 |
| 800 | 348.7 | 350.2 | 352.8 | 346.3 | 368.3 | 379.7 | 356.8 | 362.7 |
| 750 | 320.2 | 311.9 | 325.2 | 322.3 | 342.5 | 342.6 | 323.2 | 326.1 |
| 700 | 287.2 | 283.4 | 291.4 | 290.5 | 305.2 | 312.8 | 295.5 | 296.0 |
| 650 | 253.5 | 256.9 | 254.7 | 255.1 | 259.3 | 254.5 | 250.7 | 263.6 |
| 600 | 237.8 | 240.0 | 239.7 | 238.2 | 240.4 | 231.0 | 236.7 | 234.4 |
| 550 | 222.1 | 223.1 | 224.6 | 222.5 | 227.2 | 216.0 | 222.7 | 209.9 |
| 500 | 201.8 | 202.4 | 201.6 | 203.1 | 208.1 | 198.5 | 201.0 | 191.3 |
| 450 | 185.1 | 183.9 | 177.8 | 184.3 | 185.2 | 183.9 | 182.5 | 175.6 |
| 400 | 177.3 | 173.7 | 157.8 | 172.9 | 174.5 | 176.2 | 175.0 | 162.8 |
| 350 | 175.9 | 168.9 | | 170.4 | 168.8 | 169.5 | 180.1 | 162.1 |
| 300 | 191.3 | 167.3 | | 194.9 | 172.9 | 177.8 | 201.2 | 177.6 |
| LONG | -90.11 | -89.18 | -88.37 | -87.65 | -86.71 | -86.13 | -85.61 | -84.81 |
| LAT | 56.75 | 54.84 | 52.87 | 50.95 | 48.08 | 46.10 | 44.16 | 40.76 |
| QUAL | 21 | 21 | 23 | 22 | 32 | 23 | 31 | 33 |

PASS 3378 AT OTTAWA, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 191030 | 191113 | 191158 | 191233 | 191308 | 191343 | 191418 |
| 1000 | 0.164 | 0.172 | 0.193 | 0.200 | 0.208 | 0.209 | 0.249 |
| 950 | 0.182 | 0.194 | 0.216 | 0.224 | 0.231 | 0.235 | 0.274 |
| 900 | 0.204 | 0.220 | 0.243 | 0.252 | 0.260 | 0.266 | 0.311 |
| 850 | 0.230 | 0.248 | 0.275 | 0.285 | 0.292 | 0.304 | 0.352 |
| 800 | 0.263 | 0.285 | 0.316 | 0.327 | 0.336 | 0.352 | 0.406 |
| 750 | 0.307 | 0.330 | 0.367 | 0.380 | 0.393 | 0.416 | 0.478 |
| 700 | 0.363 | 0.389 | 0.430 | 0.449 | 0.464 | 0.496 | 0.573 |
| 650 | 0.436 | 0.467 | 0.513 | 0.539 | 0.566 | 0.603 | 0.690 |
| 600 | 0.539 | 0.577 | 0.630 | 0.664 | 0.695 | 0.750 | 0.873 |
| 550 | 0.672 | 0.721 | 0.799 | 0.846 | 0.888 | 0.968 | 1.119 |
| 500 | 0.870 | 0.943 | 1.040 | 1.104 | 1.160 | 1.280 | 1.497 |
| 450 | 1.150 | 1.265 | 1.386 | 1.480 | 1.575 | 1.743 | 2.067 |
| 400 | 1.559 | 1.712 | 1.888 | 2.003 | 2.210 | 2.449 | 2.926 |
| 350 | 2.119 | 2.286 | 2.569 | 2.720 | 3.081 | 3.375 | 4.215 |
| 300 | 2.771 | | | | | 4.308 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 447.3 | 413.7 | 430.9 | 425.3 | 455.3 | 417.6 | 450.4 |
| 900 | 422.4 | 400.6 | 406.2 | 406.2 | 418.8 | 389.0 | 400.7 |
| 850 | 388.1 | 382.0 | 381.9 | 385.2 | 387.1 | 358.1 | 373.1 |
| 800 | 347.2 | 356.3 | 350.4 | 350.5 | 345.7 | 327.3 | 331.3 |
| 750 | 320.9 | 327.9 | 325.9 | 313.4 | 306.7 | 296.5 | 288.3 |
| 700 | 291.0 | 289.7 | 297.4 | 287.9 | 271.8 | 269.9 | 267.7 |
| 650 | 247.6 | 249.2 | 261.9 | 259.8 | 252.2 | 242.2 | 247.1 |
| 600 | 233.0 | 233.1 | 231.1 | 227.6 | 232.6 | 215.0 | 219.2 |
| 550 | 218.3 | 215.0 | 205.7 | 203.4 | 205.1 | 193.5 | 191.0 |
| 500 | 194.1 | 184.0 | 184.9 | 183.2 | 178.2 | 173.1 | 165.8 |
| 450 | 174.2 | 170.0 | 170.9 | 169.5 | 156.6 | 154.6 | 151.1 |
| 400 | 165.2 | 169.0 | 161.9 | 165.1 | 148.8 | 149.1 | 135.6 |
| 350 | 177.1 | 199.0 | 166.1 | 172.6 | 167.1 | 179.3 | 146.9 |
| 300 | 215.7 | | | | | 249.6 | |
| LONG | -84.70 | -84.21 | -83.73 | -83.40 | -83.08 | -82.79 | -82.51 |
| LAT | 40.26 | 37.86 | 35.35 | 33.40 | 31.44 | 29.48 | 27.52 |
| QUAL | 32 | 22 | 23 | 22 | 22 | 22 | 22 |

PASS 3378 AT QUITOE, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 191837 | 191913 | 191948 | 192024 | 192059 | 192134 | 192209 | 192244 |
| 1000 | 0.317 | 0.397 | 0.408 | 0.426 | 0.453 | 0.454 | 0.449 | 0.446 |
| 950 | 0.376 | 0.454 | 0.470 | 0.491 | 0.520 | 0.522 | 0.511 | 0.505 |
| 900 | 0.444 | 0.529 | 0.549 | 0.577 | 0.607 | 0.604 | 0.582 | 0.580 |
| 850 | 0.526 | 0.621 | 0.641 | 0.679 | 0.711 | 0.701 | 0.674 | 0.671 |
| 800 | 0.639 | 0.733 | 0.761 | 0.809 | 0.839 | 0.827 | 0.785 | 0.778 |
| 750 | 0.786 | 0.900 | 0.925 | 0.994 | 1.015 | 1.001 | 0.957 | 0.940 |
| 700 | 0.985 | 1.122 | 1.165 | 1.244 | 1.257 | 1.254 | 1.205 | 1.178 |
| 650 | 1.257 | 1.454 | 1.536 | 1.616 | 1.638 | 1.628 | 1.549 | 1.561 |
| 600 | 1.688 | 1.953 | 2.112 | 2.214 | 2.237 | 2.230 | 2.094 | 2.182 |
| 550 | 2.385 | 2.776 | 3.088 | 3.182 | 3.233 | 3.217 | 3.068 | 3.216 |
| 500 | 3.616 | 4.226 | 4.844 | 4.945 | 5.041 | 4.937 | 4.835 | 4.997 |
| 450 | 5.929 | 7.054 | 7.989 | 7.979 | 7.941 | 7.892 | 7.708 | 7.801 |
| 400 | 9.880 | 11.397 | 11.920 | 11.746 | 11.320 | 11.392 | 11.293 | 10.905 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 301.7 | 343.1 | 335.1 | 333.8 | 343.8 | 350.1 | 381.9 | 382.3 |
| 900 | 297.4 | 318.6 | 316.5 | 306.0 | 314.3 | 336.7 | 350.4 | 351.9 |
| 850 | 268.6 | 297.6 | 301.3 | 289.2 | 303.8 | 313.1 | 322.4 | 329.3 |
| 800 | 253.0 | 275.9 | 277.1 | 269.0 | 287.4 | 283.5 | 294.4 | 306.8 |
| 750 | 239.8 | 246.3 | 241.7 | 243.4 | 257.3 | 248.5 | 254.4 | 251.7 |
| 700 | 216.9 | 210.4 | 198.3 | 202.9 | 206.4 | 211.9 | 210.9 | 203.4 |
| 650 | 189.8 | 185.2 | 173.9 | 180.9 | 180.8 | 179.0 | 187.3 | 167.4 |
| 600 | 162.2 | 155.4 | 145.1 | 149.1 | 149.4 | 146.4 | 146.9 | 137.8 |
| 550 | 135.0 | 133.3 | 120.5 | 125.7 | 122.7 | 126.8 | 122.0 | 120.5 |
| 500 | 111.0 | 108.8 | 103.3 | 102.5 | 105.7 | 107.7 | 103.7 | 109.1 |
| 450 | 98.9 | 94.6 | 106.2 | 110.9 | 119.4 | 112.5 | 114.6 | 122.5 |
| 400 | 115.5 | 146.0 | 163.5 | 188.4 | 225.9 | 214.1 | 182.2 | 242.9 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -80.80 | -80.60 | -80.41 | -80.21 | -80.03 | -79.84 | -79.66 | -79.48 |
| LAT | 12.98 | 10.95 | 8.98 | 6.95 | 4.99 | 3.01 | 1.05 | -0.91 |
| QUAL | 23 | 23 | 23 | 23 | 22 | 22 | 23 | 23 |

PASS 3378 AT QUITOE, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 192318 | 192411 | 192446 | 192521 | 192556 | 192631 | 192707 | 192819 |
| 1000 | 0.415 | 0.375 | 0.355 | 0.333 | 0.308 | 0.298 | 0.270 | 0.287 |
| 950 | 0.467 | 0.421 | 0.399 | 0.369 | 0.351 | 0.338 | 0.300 | 0.308 |
| 900 | 0.534 | 0.477 | 0.465 | 0.419 | 0.409 | 0.390 | 0.340 | 0.338 |
| 850 | 0.620 | 0.545 | 0.542 | 0.484 | 0.482 | 0.457 | 0.390 | 0.382 |
| 800 | 0.722 | 0.648 | 0.660 | 0.610 | 0.631 | 0.584 | 0.501 | 0.445 |
| 750 | 0.877 | 0.788 | 0.849 | 0.795 | 0.820 | 0.759 | 0.660 | 0.545 |
| 700 | 1.110 | 1.010 | 1.150 | 1.056 | 1.050 | 0.980 | 0.868 | 0.733 |
| 650 | 1.451 | 1.449 | 1.561 | 1.378 | 1.345 | 1.253 | 1.137 | 1.001 |
| 600 | 2.001 | 2.080 | 2.081 | 1.824 | 1.794 | 1.644 | 1.517 | 1.382 |
| 550 | 3.022 | 2.944 | 2.902 | 2.551 | 2.510 | 2.292 | 2.109 | 1.990 |
| 500 | 4.662 | 4.172 | 4.086 | 3.608 | 3.496 | 3.263 | 3.039 | 3.079 |
| 450 | 6.725 | 5.711 | 5.308 | 4.711 | 4.515 | 4.276 | 4.284 | 4.344 |
| 400 | 9.027 | | 6.331 | 5.547 | 5.470 | 5.223 | 5.694 | 5.767 |
| 350 | | | 6.975 | | | 6.039 | | 7.517 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 396.7 | 401.4 | 400.2 | 415.5 | 339.0 | 370.4 | 413.4 | 611.7 |
| 900 | 351.2 | 370.7 | 334.2 | 361.9 | 297.0 | 320.3 | 354.0 | 464.0 |
| 850 | 322.6 | 332.5 | 286.7 | 303.3 | 255.0 | 269.9 | 294.6 | 372.7 |
| 800 | 294.0 | 285.3 | 242.1 | 201.8 | 203.8 | 212.5 | 228.8 | 294.0 |
| 750 | 253.1 | 233.7 | 199.8 | 186.9 | 196.2 | 192.2 | 186.4 | 209.3 |
| 700 | 204.8 | 174.9 | 157.2 | 184.5 | 196.5 | 197.5 | 184.4 | 177.4 |
| 650 | 172.1 | 137.8 | 168.2 | 181.8 | 189.4 | 193.8 | 179.3 | 156.9 |
| 600 | 141.3 | 143.2 | 160.7 | 166.7 | 163.8 | 171.4 | 164.9 | 148.3 |
| 550 | 113.6 | 144.1 | 145.9 | 145.6 | 149.3 | 143.8 | 140.5 | 124.5 |
| 500 | 128.7 | 148.1 | 163.2 | 163.0 | 172.9 | 160.9 | 139.6 | 126.8 |
| 450 | 147.6 | 185.2 | 237.6 | 245.0 | 230.6 | 218.9 | 159.9 | 163.6 |
| 400 | 210.4 | | 388.6 | 423.6 | 318.4 | 298.4 | 204.8 | 182.3 |
| 350 | | | 664.9 | | | 437.3 | | 199.6 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -79.30 | -79.02 | -78.83 | -78.64 | -78.45 | -78.25 | -78.04 | -77.60 |
| LAT | -2.82 | -5.80 | -7.77 | -9.74 | -11.71 | -13.67 | -15.68 | -19.71 |
| QUAL | 23 | 23 | 22 | 22 | 22 | 22 | 23 | 23 |

PASS 3378 AT QUITOE, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 192854 | 192947 | 193020 |
| 1000 | 0.281 | 0.259 | 0.228 |
| 950 | 0.302 | 0.286 | 0.253 |
| 900 | 0.326 | 0.316 | 0.282 |
| 850 | 0.359 | 0.351 | 0.316 |
| 800 | 0.402 | 0.391 | 0.356 |
| 750 | 0.505 | 0.442 | 0.404 |
| 700 | 0.652 | 0.511 | 0.462 |
| 650 | 0.843 | 0.623 | 0.549 |
| 600 | 1.158 | 0.831 | 0.689 |
| 550 | 1.720 | 1.183 | 0.952 |
| 500 | 2.715 | 1.907 | 1.431 |
| 450 | 4.180 | 3.211 | 2.386 |
| 400 | 6.009 | 5.380 | 4.063 |
| 350 | 7.997 | 8.231 | 7.032 |
| 300 | | | |

| HEIGHT | SCALE HEIGHT, KM | | |
|---|---|---|---|
| 950 | 642.2 | 497.1 | 461.5 |
| 900 | 565.1 | 481.4 | 448.3 |
| 850 | 457.0 | 454.0 | 432.0 |
| 800 | 350.1 | 422.8 | 412.2 |
| 750 | 261.9 | 374.6 | 375.5 |
| 700 | 197.4 | 309.1 | 326.8 |
| 650 | 179.2 | 232.2 | 267.6 |
| 600 | 142.8 | 158.4 | 193.1 |
| 550 | 119.7 | 127.6 | 143.1 |
| 500 | 111.2 | 102.4 | 113.6 |
| 450 | 126.5 | 93.7 | 94.0 |
| 400 | 154.2 | 104.3 | 88.9 |
| 350 | 189.0 | 125.5 | 103.0 |
| 300 | | | |

| | | | |
|---|---|---|---|
| LONG | -77.37 | -77.00 | -76.76 |
| LAT | -21.66 | -24.63 | -26.47 |
| QUAL | 23 | 23 | 23 |

PASS 3378 AT AGASTA, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 192818 | 192853 | 192929 |
| 1000 | 0.301 | 0.296 | 0.285 |
| 950 | 0.324 | 0.320 | 0.312 |
| 900 | 0.357 | 0.344 | 0.343 |
| 850 | 0.404 | 0.381 | 0.375 |
| 800 | 0.484 | 0.436 | 0.413 |
| 750 | 0.592 | 0.517 | 0.462 |
| 700 | 0.769 | 0.640 | 0.520 |
| 650 | 1.016 | 0.841 | 0.597 |
| 600 | 1.380 | 1.145 | 0.904 |
| 550 | 1.957 | 1.659 | 1.265 |
| 500 | 2.878 | 2.551 | 2.044 |
| 450 | 4.080 | 3.904 | 3.435 |
| 400 | 5.424 | 5.623 | 5.417 |
| 350 | 7.132 | 7.605 | 7.891 |
| 300 | 9.046 | 10.005 | 11.015 |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 600.4 | 674.1 | 535.7 |
| 900 | 457.6 | 551.2 | 554.4 |
| 850 | 341.6 | 440.1 | 509.6 |
| 800 | 287.6 | 363.9 | 448.2 |
| 750 | 233.7 | 281.7 | 396.8 |
| 700 | 202.1 | 212.7 | 345.4 |
| 650 | 175.2 | 181.3 | 289.5 |
| 600 | 155.0 | 153.4 | 135.4 |
| 550 | 135.3 | 122.7 | 131.4 |
| 500 | 134.9 | 116.9 | 96.1 |
| 450 | 159.2 | 123.4 | 100.5 |
| 400 | 180.9 | 154.6 | 123.2 |
| 350 | 195.4 | 178.9 | 145.8 |
| 300 | 224.4 | 168.7 | 164.1 |
| LONG | -77.60 | -77.38 | -77.13 |
| LAT | -19.65 | -21.61 | -23.62 |
| QUAL | 23 | 23 | 23 |

PASS 3378 AT SOLANT, 63 6 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 193022 | 193115 | 193150 | 193225 | 193300 | 193335 | 193835 |
| 1000 | 0.238 | 0.191 | 0.184 | 0.148 | 0.121 | 0.122 | 0.051 |
| 950 | 0.262 | 0.207 | 0.201 | 0.158 | 0.130 | 0.130 | 0.056 |
| 900 | 0.290 | 0.227 | 0.219 | 0.171 | 0.139 | 0.139 | 0.062 |
| 850 | 0.322 | 0.250 | 0.240 | 0.189 | 0.152 | 0.149 | 0.069 |
| 800 | 0.362 | 0.282 | 0.265 | 0.214 | 0.168 | 0.161 | 0.077 |
| 750 | 0.410 | 0.320 | 0.296 | 0.243 | 0.189 | 0.178 | 0.086 |
| 700 | 0.472 | 0.368 | 0.335 | 0.276 | 0.215 | 0.201 | 0.097 |
| 650 | 0.558 | 0.435 | 0.392 | 0.313 | 0.251 | 0.231 | 0.116 |
| 600 | 0.716 | 0.530 | 0.465 | 0.379 | 0.299 | 0.266 | 0.141 |
| 550 | 0.966 | 0.687 | 0.597 | 0.469 | 0.374 | 0.334 | 0.171 |
| 500 | 1.373 | 0.964 | 0.828 | 0.638 | 0.491 | 0.443 | 0.223 |
| 450 | 2.266 | 1.485 | 1.219 | 0.942 | 0.715 | 0.638 | 0.300 |
| 400 | 4.010 | 2.440 | 1.847 | 1.390 | 1.059 | 0.921 | 0.430 |
| 350 | 6.892 | 4.100 | 2.877 | 2.081 | 1.564 | 1.360 | 0.642 |
| 300 | 11.161 | 7.108 | 4.872 | 3.313 | 2.452 | 2.243 | 1.090 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 509.2 | 562.7 | 564.6 | 647.3 | 684.6 | 758.4 | 512.9 |
| 900 | 480.1 | 520.6 | 550.4 | 565.0 | 611.4 | 708.7 | 481.8 |
| 850 | 453.2 | 475.7 | 519.7 | 495.5 | 545.6 | 638.7 | 457.6 |
| 800 | 420.6 | 422.4 | 473.6 | 437.0 | 479.8 | 542.4 | 426.7 |
| 750 | 386.4 | 372.5 | 417.1 | 389.1 | 419.8 | 472.4 | 386.3 |
| 700 | 334.3 | 327.5 | 361.8 | 358.4 | 361.7 | 420.5 | 345.9 |
| 650 | 241.7 | 281.4 | 312.0 | 327.7 | 310.5 | 368.6 | 308.8 |
| 600 | 195.4 | 234.8 | 262.2 | 271.3 | 263.2 | 316.7 | 272.3 |
| 550 | 163.3 | 181.8 | 189.1 | 210.0 | 215.6 | 231.6 | 235.8 |
| 500 | 124.8 | 136.2 | 144.8 | 145.5 | 168.0 | 161.5 | 193.3 |
| 450 | 94.1 | 110.1 | 124.0 | 128.5 | 129.5 | 137.2 | 157.3 |
| 400 | 87.3 | 97.0 | 118.2 | 127.9 | 129.9 | 132.0 | 136.0 |
| 350 | 98.7 | 97.3 | 105.7 | 116.2 | 123.4 | 117.1 | 114.7 |
| 300 | 106.9 | 87.7 | 84.8 | 98.3 | 97.4 | 89.4 | 78.9 |
| LONG | -76.72 | -76.29 | -76.03 | -75.73 | -75.40 | -75.03 | -70.41 |
| LAT | -26.58 | -29.53 | -31.47 | -33.42 | -35.36 | -37.30 | -53.74 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3391 AT RESLUT, 63 6 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 174844 | 174902 | 174920 | 174936 | 174954 | 175013 | 175030 | 175048 |
| 1000 | 0.173 | 0.155 | 0.173 | 0.166 | 0.178 | 0.167 | 0.166 | 0.151 |
| 950 | 0.196 | 0.176 | 0.193 | 0.191 | 0.198 | 0.188 | 0.188 | 0.172 |
| 900 | 0.221 | 0.202 | 0.217 | 0.218 | 0.222 | 0.210 | 0.211 | 0.195 |
| 850 | 0.251 | 0.234 | 0.246 | 0.248 | 0.254 | 0.239 | 0.237 | 0.223 |
| 800 | 0.290 | 0.269 | 0.279 | 0.286 | 0.293 | 0.276 | 0.270 | 0.258 |
| 750 | 0.357 | 0.314 | 0.319 | 0.333 | 0.338 | 0.322 | 0.313 | 0.301 |
| 700 | 0.396 | 0.373 | 0.372 | 0.393 | 0.397 | 0.379 | 0.369 | 0.353 |
| 650 | 0.474 | 0.451 | 0.441 | 0.472 | 0.475 | 0.456 | 0.443 | 0.422 |
| 600 | 0.582 | 0.553 | 0.534 | 0.574 | 0.576 | 0.560 | 0.547 | 0.513 |
| 550 | 0.716 | 0.702 | 0.653 | 0.713 | 0.713 | 0.692 | 0.682 | 0.638 |
| 500 | 0.899 | 0.895 | 0.828 | 0.904 | 0.895 | 0.873 | 0.857 | 0.807 |
| 450 | 1.150 | 1.144 | 1.067 | 1.156 | 1.166 | 1.113 | 1.092 | 1.044 |
| 400 | 1.507 | 1.484 | 1.400 | 1.496 | 1.512 | 1.411 | 1.396 | 1.357 |
| 350 | 2.007 | 1.906 | 1.885 | 1.925 | 1.875 | 1.737 | 1.770 | 1.801 |
| 300 | 2.644 | | 2.592 | | | 2.066 | 2.236 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 399.5 | 387.4 | 436.3 | 366.9 | 450.8 | 443.1 | 399.0 | 386.7 |
| 900 | 391.0 | 352.7 | 418.0 | 380.0 | 402.7 | 407.5 | 428.9 | 374.9 |
| 850 | 368.0 | 341.5 | 399.2 | 361.7 | 370.4 | 370.3 | 401.5 | 353.4 |
| 800 | 351.3 | 330.8 | 375.7 | 344.4 | 351.5 | 350.0 | 361.1 | 338.7 |
| 750 | 319.5 | 307.7 | 347.5 | 321.0 | 326.7 | 318.1 | 329.7 | 319.3 |
| 700 | 288.0 | 277.1 | 313.2 | 282.5 | 294.6 | 283.0 | 291.1 | 296.3 |
| 650 | 261.1 | 253.1 | 275.8 | 268.3 | 269.4 | 256.1 | 253.4 | 272.8 |
| 600 | 249.3 | 232.3 | 254.8 | 245.3 | 250.6 | 244.6 | 240.7 | 242.3 |
| 550 | 237.4 | 219.2 | 233.8 | 222.9 | 230.9 | 232.8 | 228.0 | 221.0 |
| 500 | 215.3 | 207.7 | 212.1 | 208.6 | 210.6 | 215.2 | 215.6 | 206.4 |
| 450 | 196.8 | 199.3 | 194.8 | 200.3 | 192.6 | 213.4 | 207.2 | 198.8 |
| 400 | 183.3 | 201.6 | 178.7 | 196.0 | 211.4 | 228.6 | 209.1 | 185.9 |
| 350 | 178.6 | 210.4 | 163.1 | 211.3 | 280.3 | 262.6 | 212.9 | 180.5 |
| 300 | 194.7 | | 162.4 | | | 351.5 | 224.9 | |
| LONG | -132.77 | -127.03 | -122.33 | -118.15 | -113.45 | -109.44 | -106.25 | -102.88 |
| LAT | 80.05 | 79.83 | 79.34 | 78.91 | 78.43 | 77.78 | 77.13 | 76.45 |
| QUAL | 33 | 33 | 33 | 32 | 31 | 32 | 33 | 33 |

PASS 3391 AT RESLUT, 63 6 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 175105 | 175123 | 175140 | 175158 | 175216 | 175234 | 175250 | 175308 |
| 1000 | 0.186 | 0.214 | 0.213 | 0.217 | 0.213 | 0.218 | 0.311 | 0.246 |
| 950 | 0.206 | 0.244 | 0.231 | 0.246 | 0.246 | 0.252 | 0.330 | 0.279 |
| 900 | 0.230 | 0.278 | 0.257 | 0.277 | 0.279 | 0.289 | 0.353 | 0.311 |
| 850 | 0.259 | 0.316 | 0.294 | 0.313 | 0.315 | 0.333 | 0.385 | 0.346 |
| 800 | 0.295 | 0.360 | 0.333 | 0.355 | 0.359 | 0.382 | 0.429 | 0.391 |
| 750 | 0.340 | 0.411 | 0.379 | 0.405 | 0.413 | 0.442 | 0.491 | 0.443 |
| 700 | 0.400 | 0.475 | 0.439 | 0.467 | 0.479 | 0.521 | 0.573 | 0.503 |
| 650 | 0.479 | 0.554 | 0.521 | 0.556 | 0.565 | 0.628 | 0.671 | 0.602 |
| 600 | 0.587 | 0.681 | 0.630 | 0.674 | 0.673 | 0.772 | 0.818 | 0.726 |
| 550 | 0.733 | 0.842 | 0.774 | 0.838 | 0.822 | 0.977 | 1.025 | 0.886 |
| 500 | 0.935 | 1.062 | 0.963 | 1.057 | 1.033 | 1.279 | 1.295 | 1.108 |
| 450 | 1.210 | 1.362 | 1.237 | 1.352 | 1.335 | 1.686 | 1.639 | 1.404 |
| 400 | 1.578 | 1.761 | 1.618 | 1.754 | 1.766 | 2.244 | 2.139 | 1.837 |
| 350 | 2.065 | 2.267 | 2.132 | 2.294 | 2.359 | | 2.814 | 2.477 |
| 300 | 2.677 | 2.911 | 2.778 | 2.946 | | | | 3.292 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 468.9 | 385.2 | 540.4 | 406.9 | | 362.7 | 790.6 | 456.6 |
| 900 | 434.1 | 383.6 | 437.2 | 408.2 | 401.5 | 359.3 | 646.6 | 440.2 |
| 850 | 402.0 | 386.9 | 392.6 | 404.6 | 394.2 | 357.7 | 526.7 | 421.0 |
| 800 | 375.0 | 373.6 | 394.9 | 389.3 | 370.1 | 342.8 | 417.5 | 397.0 |
| 750 | 328.4 | 348.2 | 352.0 | 351.6 | 343.6 | 316.4 | 374.5 | 373.0 |
| 700 | 291.9 | 320.4 | 315.6 | 315.0 | 317.9 | 290.7 | 340.5 | 349.0 |
| 650 | 263.0 | 292.4 | 285.0 | 284.3 | 295.6 | 265.6 | 306.4 | 305.9 |
| 600 | 242.9 | 262.2 | 256.9 | 254.8 | 271.3 | 232.5 | 231.6 | 263.4 |
| 550 | 220.9 | 232.5 | 238.2 | 228.6 | 241.5 | 201.0 | 223.8 | 234.3 |
| 500 | 200.8 | 213.2 | 218.0 | 210.7 | 212.0 | 185.4 | 216.1 | 218.6 |
| 450 | 193.7 | 199.2 | 195.2 | 202.3 | 188.6 | 179.4 | 202.2 | 206.4 |
| 400 | 189.1 | 197.6 | 184.4 | 188.6 | 176.3 | 184.2 | 185.3 | 179.0 |
| 350 | 190.4 | 198.6 | 186.5 | 192.7 | 188.9 | | 184.9 | 173.8 |
| 300 | 216.8 | 212.1 | 189.1 | 305.9 | | | | 191.1 |
| LONG | -99.97 | -97.61 | -95.38 | -93.01 | -91.25 | -89.57 | -88.07 | -86.58 |
| LAT | 75.78 | 74.98 | 74.23 | 73.43 | 72.57 | 71.71 | 70.94 | 70.05 |
| QUAL | 31 | 33 | 32 | 32 | 31 | 31 | 32 | 31 |

PASS 3391 AT RESLUT, 63 6 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 175326 | 175342 | 175400 | 175418 | 175436 | 175454 | 175511 | 175528 |
| 1000 | 0.216 | 0.228 | 0.218 | 0.189 | 0.164 | 0.158 | 0.158 | 0.150 |
| 950 | 0.248 | 0.259 | 0.247 | 0.216 | 0.187 | 0.182 | 0.180 | 0.175 |
| 900 | 0.282 | 0.289 | 0.282 | 0.245 | 0.212 | 0.208 | 0.204 | 0.199 |
| 850 | 0.319 | 0.331 | 0.318 | 0.280 | 0.246 | 0.239 | 0.232 | 0.227 |
| 800 | 0.361 | 0.380 | 0.362 | 0.323 | 0.287 | 0.275 | 0.265 | 0.263 |
| 750 | 0.413 | 0.440 | 0.413 | 0.376 | 0.336 | 0.317 | 0.307 | 0.305 |
| 700 | 0.482 | 0.510 | 0.470 | 0.456 | 0.391 | 0.375 | 0.359 | 0.357 |
| 650 | 0.566 | 0.601 | 0.561 | 0.558 | 0.474 | 0.449 | 0.431 | 0.417 |
| 600 | 0.693 | 0.733 | 0.682 | 0.684 | 0.580 | 0.555 | 0.522 | 0.508 |
| 550 | 0.860 | 0.897 | 0.834 | 0.840 | 0.729 | 0.696 | 0.652 | 0.647 |
| 500 | 1.079 | 1.105 | 1.066 | 1.053 | 0.924 | 0.905 | 0.833 | 0.819 |
| 450 | 1.374 | 1.387 | 1.367 | 1.343 | 1.181 | 1.199 | 1.084 | 1.068 |
| 400 | 1.767 | 1.778 | 1.789 | 1.726 | 1.517 | 1.600 | 1.412 | 1.391 |
| 350 | 2.294 | 2.312 | 2.362 | 2.209 | 1.960 | 2.118 | 1.859 | 1.841 |
| 300 | 3.016 | 3.104 | 3.128 | 2.855 | 2.589 | 2.705 | 2.430 | 2.447 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | 395.3 | 406.4 | 383.3 | 365.6 | 361.5 | 401.4 | |
| 900 | 391.7 | 393.9 | 393.8 | 374.5 | 357.7 | 359.6 | 386.9 | 362.7 |
| 850 | 393.0 | 379.1 | 387.2 | 361.3 | 340.2 | 351.8 | 370.0 | 354.5 |
| 800 | 370.5 | 364.4 | 369.2 | 328.9 | 323.9 | 340.5 | 355.6 | 340.9 |
| 750 | 344.5 | 341.7 | 349.5 | 295.7 | 309.6 | 328.4 | 329.5 | 323.6 |
| 700 | 314.8 | 316.0 | 329.7 | 273.4 | 295.3 | 292.3 | 297.0 | 301.5 |
| 650 | 265.1 | 289.9 | 299.2 | 252.2 | 265.4 | 258.7 | 271.5 | 279.4 |
| 600 | 261.3 | 263.3 | 266.0 | 244.0 | 235.5 | 234.0 | 247.8 | 256.6 |
| 550 | 236.6 | 246.1 | 234.9 | 233.6 | 221.6 | 210.6 | 223.8 | 233.2 |
| 500 | 220.6 | 229.6 | 214.1 | 216.6 | 209.7 | 190.7 | 200.1 | 209.7 |
| 450 | 209.2 | 210.6 | 196.5 | 206.3 | 202.1 | 180.7 | 193.7 | 197.0 |
| 400 | 198.0 | 201.0 | 187.0 | 202.6 | 198.0 | 178.3 | 186.2 | 186.5 |
| 350 | 187.1 | 181.5 | 180.8 | 200.4 | 188.9 | 191.5 | 182.9 | 178.2 |
| 300 | 245.4 | 176.4 | 188.1 | 191.9 | 182.6 | 277.9 | 201.7 | 180.2 |
| LONG | -85.54 | -84.23 | -82.99 | -82.05 | -81.12 | -80.18 | -79.42 | -78.73 |
| LAT | 69.14 | 68.33 | 67.42 | 66.48 | 65.55 | 64.61 | 63.72 | 62.82 |
| QUAL | 31 | 32 | 32 | 32 | 32 | 32 | 32 | 31 |

PASS 3391 AT RESLUT, 63 6 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 175546 | 175604 | 175636 | 175656 | 175714 | 175728 |
| 1000 | 0.135 | 0.144 | 0.132 | 0.156 | 0.161 | 0.120 |
| 950 | 0.175 | 0.166 | 0.156 | 0.180 | 0.184 | 0.139 |
| 900 | 0.201 | 0.190 | 0.180 | 0.207 | 0.209 | 0.162 |
| 850 | 0.231 | 0.220 | 0.210 | 0.239 | 0.239 | 0.191 |
| 800 | 0.266 | 0.255 | 0.248 | 0.276 | 0.276 | 0.225 |
| 750 | 0.308 | 0.295 | 0.294 | 0.319 | 0.319 | 0.268 |
| 700 | 0.358 | 0.344 | 0.350 | 0.367 | 0.371 | 0.318 |
| 650 | 0.422 | 0.412 | 0.430 | 0.444 | 0.445 | 0.393 |
| 600 | 0.520 | 0.499 | 0.541 | 0.541 | 0.547 | 0.499 |
| 550 | 0.647 | 0.621 | 0.691 | 0.678 | 0.684 | 0.647 |
| 500 | 0.825 | 0.796 | 0.900 | 0.874 | 0.887 | 0.849 |
| 450 | 1.078 | 1.044 | 1.205 | 1.151 | 1.171 | 1.159 |
| 400 | 1.491 | 1.395 | 1.634 | 1.547 | 1.586 | 1.577 |
| 350 | 1.892 | | 2.211 | | 2.093 | 2.130 |
| 300 | 2.492 | | | | 2.801 | |
| **HEIGHT** | **SCALE HEIGHT, KM** | | | | | |
| 950 | 396.4 | 347.6 | 380.3 | 343.2 | 375.0 | 317.2 |
| 900 | 370.2 | 350.1 | 317.4 | 348.0 | 371.6 | 313.1 |
| 850 | 358.8 | 337.1 | 311.7 | 349.6 | 356.8 | 309.7 |
| 800 | 348.6 | 330.6 | 301.3 | 342.2 | 343.5 | 296.3 |
| 750 | 329.2 | 322.2 | 283.4 | 323.8 | 330.4 | 278.4 |
| 700 | 306.6 | 308.9 | 262.1 | 305.3 | 309.2 | 260.6 |
| 650 | 281.1 | 276.2 | 241.8 | 276.7 | 261.7 | 237.7 |
| 600 | 249.4 | 246.0 | 222.0 | 248.1 | 234.2 | 211.8 |
| 550 | 221.3 | 220.0 | 200.3 | 217.6 | 214.1 | 191.2 |
| 500 | 201.1 | 197.7 | 181.0 | 190.4 | 194.1 | 174.8 |
| 450 | 186.1 | 184.3 | 169.6 | 176.4 | 178.2 | 164.0 |
| 400 | 179.6 | 173.0 | 165.6 | 158.8 | 176.0 | 165.4 |
| 350 | 180.7 | | 204.3 | | 172.0 | 197.0 |
| 300 | 179.4 | | | | 216.7 | |
| LONG | -78.00 | -77.30 | -76.27 | -75.62 | -75.12 | -74.75 |
| LAT | 61.86 | 60.90 | 59.18 | 58.11 | 57.13 | 56.37 |
| QUAL | 31 | 31 | 31 | 23 | 22 | 22 |

PASS 3391 AT OTTAWA, 63 6 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 180150 | 180243 | 180317 | 180353 | 180428 | 180503 | 180539 | 180613 |
| 1000 | 0.149 | 0.164 | 0.176 | 0.176 | 0.187 | 0.212 | 0.199 | 0.211 |
| 950 | 0.166 | 0.183 | 0.197 | 0.200 | 0.209 | 0.233 | 0.223 | 0.240 |
| 900 | 0.187 | 0.206 | 0.221 | 0.226 | 0.234 | 0.261 | 0.253 | 0.272 |
| 850 | 0.212 | 0.233 | 0.250 | 0.259 | 0.267 | 0.296 | 0.291 | 0.311 |
| 800 | 0.241 | 0.267 | 0.285 | 0.298 | 0.308 | 0.337 | 0.334 | 0.357 |
| 750 | 0.279 | 0.307 | 0.326 | 0.345 | 0.356 | 0.385 | 0.388 | 0.413 |
| 700 | 0.328 | 0.362 | 0.384 | 0.401 | 0.415 | 0.453 | 0.453 | 0.480 |
| 650 | 0.392 | 0.435 | 0.470 | 0.484 | 0.495 | 0.541 | 0.539 | 0.590 |
| 600 | 0.486 | 0.537 | 0.579 | 0.591 | 0.613 | 0.670 | 0.692 | 0.730 |
| 550 | 0.611 | 0.665 | 0.732 | 0.752 | 0.764 | 0.832 | 0.890 | 0.936 |
| 500 | 0.795 | 0.864 | 0.946 | 0.961 | 0.990 | 1.108 | 1.169 | 1.228 |
| 450 | 1.067 | 1.162 | 1.209 | 1.300 | 1.325 | 1.479 | 1.561 | 1.700 |
| 400 | 1.431 | 1.585 | 1.654 | 1.776 | 1.825 | 2.033 | 2.183 | 2.485 |
| 350 | 1.942 | 2.155 | 2.245 | 2.421 | 2.440 | 2.820 | 3.024 | 3.384 |
| 300 | 2.650 | 2.940 | 3.042 | 3.190 | | 3.759 | 4.032 | 4.657 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 439.5 | 434.0 | 444.9 | 386.8 | 426.0 | 507.2 | 424.0 | 388.8 |
| 900 | 413.5 | 404.4 | 418.2 | 379.9 | 406.3 | 431.0 | 380.9 | 380.7 |
| 850 | 388.5 | 378.8 | 386.5 | 368.1 | 377.8 | 395.8 | 362.4 | 367.0 |
| 800 | 362.4 | 356.9 | 355.4 | 354.0 | 352.6 | 367.3 | 345.4 | 350.6 |
| 750 | 336.0 | 335.0 | 324.3 | 326.5 | 334.2 | 336.2 | 317.8 | 318.1 |
| 700 | 309.5 | 291.9 | 294.6 | 297.7 | 301.2 | 298.4 | 287.6 | 286.0 |
| 650 | 242.3 | 252.6 | 266.5 | 265.0 | 253.1 | 263.0 | 258.5 | 257.5 |
| 600 | 227.3 | 236.6 | 238.5 | 234.2 | 235.0 | 235.8 | 232.6 | 228.9 |
| 550 | 212.4 | 220.6 | 217.5 | 212.1 | 216.9 | 208.5 | 206.8 | 206.1 |
| 500 | 197.0 | 190.2 | 202.1 | 190.2 | 194.3 | 187.9 | 184.7 | 187.3 |
| 450 | 181.3 | 166.4 | 186.9 | 170.7 | 167.5 | 168.8 | 166.1 | 142.0 |
| 400 | 170.2 | 163.9 | 173.0 | 165.0 | 167.8 | 158.4 | 150.5 | 149.1 |
| 350 | 166.0 | 163.3 | 165.0 | 174.8 | 207.6 | 163.5 | 165.0 | 156.1 |
| 300 | 164.3 | 173.5 | 185.1 | 227.4 | | 222.5 | 217.3 | 221.9 |
| LONG | -69.90 | -69.27 | -68.89 | -68.52 | -68.19 | -67.87 | -67.57 | -67.30 |
| LAT | 41.93 | 38.99 | 37.09 | 35.08 | 33.12 | 31.16 | 29.15 | 27.25 |
| QUAL | 23 | 23 | 23 | 22 | 23 | 23 | 23 | 23 |

PASS 3391 AT OTTAWA, 63 6 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 180648 | 180723 | 180758 | 180816 |
| 1000 | 0.231 | 0.256 | 0.242 | 0.255 |
| 950 | 0.259 | 0.285 | 0.271 | 0.287 |
| 900 | 0.293 | 0.323 | 0.308 | 0.323 |
| 850 | 0.336 | 0.370 | 0.354 | 0.370 |
| 800 | 0.388 | 0.426 | 0.410 | 0.429 |
| 750 | 0.451 | 0.497 | 0.480 | 0.503 |
| 700 | 0.529 | 0.580 | 0.569 | 0.592 |
| 650 | 0.659 | 0.686 | 0.676 | 0.740 |
| 600 | 0.826 | 0.879 | 0.845 | 0.960 |
| 550 | 1.072 | 1.129 | 1.132 | 1.272 |
| 500 | 1.398 | 1.521 | 1.564 | 1.730 |
| 450 | 1.956 | 2.112 | 2.234 | 2.554 |
| 400 | 2.790 | 3.179 | 3.446 | 3.937 |
| 350 | 3.921 | 4.964 | 5.526 | 6.341 |
| 300 | 5.333 | 7.015 | 7.939 | 9.259 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 415.4 | 442.2 | 407.7 | 405.1 |
| 900 | 383.5 | 389.5 | 378.1 | 386.1 |
| 850 | 362.9 | 365.1 | 352.8 | 360.0 |
| 800 | 340.4 | 340.8 | 329.8 | 332.2 |
| 750 | 306.3 | 315.2 | 306.0 | 298.3 |
| 700 | 272.8 | 289.6 | 280.6 | 263.1 |
| 650 | 244.5 | 262.3 | 255.2 | 231.1 |
| 600 | 216.3 | 225.5 | 220.2 | 200.6 |
| 550 | 194.2 | 189.2 | 173.1 | 173.4 |
| 500 | 174.1 | 167.5 | 150.8 | 148.4 |
| 450 | 152.8 | 141.5 | 130.9 | 124.3 |
| 400 | 145.6 | 115.3 | 111.4 | 112.1 |
| 350 | 155.8 | 124.0 | 115.0 | 107.8 |
| 300 | 298.4 | 200.3 | 220.4 | 199.4 |
| LONG | -67.04 | -66.79 | -66.55 | -66.44 |
| LAT | 25.28 | 23.32 | 21.36 | 20.35 |
| QUAL | 23 | 23 | 23 | 23 |

PASS 3391 AT QUITOE, 63 6 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 181118 | 181153 | 181227 | 181304 | 181338 | 181413 | 181449 | 181523 |
| 1000 | 0.353 | 0.368 | 0.364 | 0.368 | 0.364 | 0.365 | 0.388 | 0.368 |
| 950 | 0.392 | 0.419 | 0.415 | 0.422 | 0.414 | 0.409 | 0.432 | 0.405 |
| 900 | 0.451 | 0.473 | 0.473 | 0.482 | 0.468 | 0.460 | 0.484 | 0.451 |
| 850 | 0.516 | 0.541 | 0.544 | 0.552 | 0.531 | 0.523 | 0.543 | 0.504 |
| 800 | 0.604 | 0.629 | 0.638 | 0.643 | 0.614 | 0.605 | 0.629 | 0.585 |
| 750 | 0.725 | 0.755 | 0.760 | 0.758 | 0.729 | 0.716 | 0.736 | 0.691 |
| 700 | 0.886 | 0.918 | 0.928 | 0.911 | 0.871 | 0.855 | 0.888 | 0.851 |
| 650 | 1.107 | 1.142 | 1.180 | 1.130 | 1.083 | 1.055 | 1.102 | 1.071 |
| 600 | 1.451 | 1.475 | 1.570 | 1.477 | 1.408 | 1.382 | 1.471 | 1.494 |
| 550 | 1.997 | 2.027 | 2.186 | 2.067 | 1.984 | 1.993 | 2.191 | 2.249 |
| 500 | 2.942 | 2.994 | 3.243 | 3.126 | 3.051 | 3.095 | 3.540 | 3.521 |
| 450 | 4.713 | 4.772 | 5.050 | 5.047 | 4.940 | | 5.761 | 5.418 |
| 400 | 8.041 | 7.904 | 7.975 | 8.109 | 8.045 | | 8.511 | 7.529 |
| 350 | 12.057 | 12.069 | 11.913 | 11.574 | | | 11.060 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 438.5 | 389.7 | 374.2 | 373.9 | 399.9 | 425.3 | 457.5 | 476.2 |
| 900 | 372.0 | 384.0 | 361.1 | 362.1 | 388.5 | 401.9 | 416.6 | 435.0 |
| 850 | 336.0 | 343.6 | 330.2 | 342.3 | 352.7 | 365.4 | 377.5 | 393.7 |
| 800 | 303.1 | 307.7 | 304.2 | 319.4 | 322.4 | 311.1 | 340.1 | 336.7 |
| 750 | 272.5 | 278.6 | 273.6 | 295.5 | 296.3 | 289.5 | 302.7 | 276.3 |
| 700 | 241.9 | 249.2 | 230.6 | 256.5 | 270.2 | 267.9 | 261.1 | 236.8 |
| 650 | 211.4 | 218.7 | 195.3 | 211.4 | 222.3 | 222.5 | 216.1 | 193.9 |
| 600 | 176.2 | 181.8 | 169.3 | 171.9 | 173.0 | 165.7 | 147.4 | 136.8 |
| 550 | 143.1 | 143.2 | 136.8 | 133.1 | 128.0 | 119.9 | 110.4 | 116.6 |
| 500 | 119.6 | 119.0 | 116.9 | 114.6 | 111.2 | 109.4 | 102.1 | 111.3 |
| 450 | 95.6 | 99.9 | 108.4 | 98.7 | 101.2 | | 111.2 | 125.8 |
| 400 | 100.6 | 104.8 | 109.8 | 112.7 | 114.0 | | 149.7 | 232.2 |
| 350 | 164.9 | 149.1 | 156.0 | 216.9 | | | 333.5 | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -65.35 | -65.16 | -64.98 | -64.78 | -64.60 | -64.42 | -64.23 | -64.05 |
| LAT | 10.12 | 8.14 | 6.23 | 4.15 | 2.24 | 0.27 | -1.75 | -3.66 |
| QUAL | 23 | 23 | 33 | 23 | 23 | 23 | 23 | 22 |

PASS 3391 AT QUITOE, 63 6 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 181558 | 181633 | 181708 | 181743 | 181801 | 181836 | 181911 | 181946 |
| 1000 | 0.359 | 0.344 | 0.339 | 0.323 | 0.327 | 0.322 | 0.319 | 0.310 |
| 950 | 0.392 | 0.378 | 0.369 | 0.352 | 0.354 | 0.347 | 0.338 | 0.335 |
| 900 | 0.434 | 0.418 | 0.406 | 0.387 | 0.390 | 0.378 | 0.365 | 0.363 |
| 850 | 0.487 | 0.469 | 0.453 | 0.434 | 0.440 | 0.429 | 0.405 | 0.398 |
| 800 | 0.561 | 0.541 | 0.535 | 0.509 | 0.514 | 0.520 | 0.521 | 0.452 |
| 750 | 0.668 | 0.652 | 0.656 | 0.620 | 0.611 | 0.642 | 0.672 | 0.546 |
| 700 | 0.807 | 0.837 | 0.846 | 0.813 | 0.816 | 0.806 | 0.827 | 0.692 |
| 650 | 1.069 | 1.114 | 1.124 | 1.082 | 1.097 | 1.014 | 1.003 | 0.906 |
| 600 | 1.532 | 1.560 | 1.544 | 1.483 | 1.489 | 1.403 | 1.393 | 1.223 |
| 550 | 2.261 | 2.246 | 2.193 | 2.099 | 2.089 | 1.974 | 1.961 | 1.729 |
| 500 | 3.469 | 3.333 | 3.221 | 3.045 | 3.034 | 2.868 | 2.848 | 2.630 |
| 450 | 5.206 | 4.853 | 4.590 | 4.365 | 4.288 | 4.052 | 4.064 | 3.940 |
| 400 | 7.122 | 6.602 | 6.234 | 5.804 | 5.688 | 5.424 | 5.491 | 5.683 |
| 350 | | | | | | 6.481 | 6.961 | |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 514.0 | 506.3 | 540.2 | 544.4 | 566.4 | 590.2 | 673.6 | 631.0 |
| 900 | 460.5 | 455.9 | 464.1 | 481.2 | 461.0 | 478.6 | 544.8 | 550.1 |
| 850 | 398.4 | 394.2 | 385.7 | 370.6 | 364.3 | 384.4 | 417.8 | 463.4 |
| 800 | 319.4 | 316.7 | 299.3 | 294.9 | 305.9 | 306.5 | 300.6 | 363.9 |
| 750 | 273.0 | 238.6 | 232.9 | 229.9 | 247.5 | 239.7 | 218.8 | 248.4 |
| 700 | 232.0 | 202.3 | 200.9 | 200.5 | 198.0 | 217.5 | 214.6 | 195.1 |
| 650 | 173.6 | 166.9 | 171.9 | 172.3 | 168.6 | 193.8 | 207.9 | 180.5 |
| 600 | 136.7 | 145.1 | 152.1 | 152.6 | 157.0 | 151.1 | 150.2 | 159.6 |
| 550 | 121.1 | 132.4 | 133.2 | 137.5 | 139.6 | 140.9 | 140.3 | 130.0 |
| 500 | 117.6 | 127.7 | 134.3 | 134.6 | 137.8 | 137.6 | 134.6 | 122.3 |
| 450 | 133.8 | 142.3 | 149.7 | 155.3 | 157.4 | 157.4 | 154.6 | 126.4 |
| 400 | 235.9 | 258.6 | 205.5 | 255.2 | 239.4 | 205.3 | 183.5 | 142.7 |
| 350 | | | | | | 549.4 | 258.0 | |
| 300 | | | | | | | | |
| LONG | -63.87 | -63.68 | -63.50 | -63.30 | -63.20 | -63.00 | -62.79 | -62.58 |
| LAT | -5.63 | -7.59 | -9.56 | -11.52 | -12.53 | -14.49 | -16.46 | -18.42 |
| QUAL | 23 | 22 | 22 | 22 | 23 | 22 | 23 | 23 |

PASS 3391 AT QUITOE, 63 6 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 182021 |
| 1000 | 0.285 |
| 950 | 0.312 |
| 900 | 0.341 |
| 850 | 0.373 |
| 800 | 0.416 |
| 750 | 0.475 |
| 700 | 0.577 |
| 650 | 0.740 |
| 600 | 0.988 |
| 550 | 1.385 |
| 500 | 2.092 |
| 450 | 3.131 |
| 400 | 4.489 |
| 350 | 6.323 |
| 300 | 8.686 |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 553.4 |
| 900 | 561.3 |
| 850 | 491.3 |
| 800 | 409.9 |
| 750 | 330.5 |
| 700 | 244.1 |
| 650 | 194.6 |
| 600 | 165.8 |
| 550 | 136.4 |
| 500 | 123.0 |
| 450 | 127.7 |
| 400 | 149.5 |
| 350 | 145.3 |
| 300 | 172.2 |

LONG -62.35
LAT -20.37

QUAL 23

PASS 3391 AT AGASTA, 63 6 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 181853 | 181928 | 182003 | 182035 | 182117 | 182153 | 182228 |
| 1000 | 0.288 | 0.287 | 0.279 | 0.291 | 0.257 | 0.239 | 0.188 |
| 950 | 0.311 | 0.307 | 0.301 | 0.317 | 0.278 | 0.264 | 0.209 |
| 900 | 0.341 | 0.334 | 0.324 | 0.342 | 0.308 | 0.294 | 0.235 |
| 850 | 0.382 | 0.368 | 0.358 | 0.373 | 0.347 | 0.328 | 0.268 |
| 800 | 0.444 | 0.421 | 0.406 | 0.420 | 0.385 | 0.369 | 0.305 |
| 750 | 0.535 | 0.511 | 0.475 | 0.493 | 0.432 | 0.418 | 0.348 |
| 700 | 0.689 | 0.645 | 0.589 | 0.586 | 0.498 | 0.479 | 0.396 |
| 650 | 0.931 | 0.843 | 0.801 | 0.789 | 0.627 | 0.567 | 0.469 |
| 600 | 1.269 | 1.119 | 1.094 | 1.164 | 0.840 | 0.694 | 0.588 |
| 550 | 1.756 | 1.610 | 1.466 | 1.590 | 1.173 | 0.965 | 0.770 |
| 500 | 2.565 | 2.410 | 2.183 | 2.229 | 1.704 | 1.439 | 1.033 |
| 450 | 3.672 | 3.604 | 3.273 | 3.320 | 2.792 | 2.274 | 1.611 |
| 400 | 4.996 | 5.074 | 4.917 | 4.706 | 4.367 | 3.703 | 2.656 |
| 350 | 6.394 | 6.570 | 7.282 | 6.768 | 6.295 | 5.646 | 4.221 |
| 300 | | | | 9.287 | 8.762 | 7.954 | 6.357 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 578.7 | 631.2 | 666.1 | 619.9 | 545.8 | 501.3 | 463.0 |
| 900 | 492.4 | 539.6 | 564.2 | 611.2 | 508.1 | 462.6 | 424.8 |
| 850 | 386.2 | 464.0 | 459.9 | 497.1 | 472.3 | 430.6 | 404.9 |
| 800 | 296.3 | 316.2 | 379.4 | 383.4 | 467.4 | 409.7 | 397.1 |
| 750 | 240.6 | 240.8 | 286.1 | 292.5 | 375.5 | 389.8 | 386.2 |
| 700 | 205.5 | 204.5 | 216.5 | 233.0 | 289.3 | 332.3 | 339.7 |
| 650 | 182.5 | 184.1 | 188.2 | 188.4 | 222.5 | 263.1 | 257.1 |
| 600 | 162.1 | 163.1 | 165.2 | 152.1 | 165.4 | 209.1 | 208.5 |
| 550 | 147.2 | 139.3 | 150.8 | 148.9 | 146.1 | 159.8 | 174.3 |
| 500 | 138.5 | 126.2 | 125.4 | 139.7 | 123.3 | 121.4 | 148.6 |
| 450 | 152.2 | 135.9 | 125.5 | 136.4 | 107.0 | 106.7 | 112.2 |
| 400 | 181.2 | 166.8 | 124.6 | 139.9 | 125.2 | 110.8 | 105.4 |
| 350 | 276.1 | 272.2 | 137.9 | 145.7 | 145.4 | 130.5 | 114.6 |
| 300 | | | | 221.8 | 172.2 | 178.7 | 129.4 |
| LONG | -62.90 | -62.69 | -62.47 | -62.26 | -61.98 | -61.73 | -61.46 |
| LAT | -15.45 | -17.41 | -19.37 | -21.15 | -23.50 | -25.51 | -27.46 |
| QUAL | 23 | 22 | 23 | 23 | 23 | 23 | 23 |

PASS 3391 AT AGASTA, 63 6 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 182303 | 182338 | 182413 | 182448 |
| 1000 | 0.189 | 0.195 | 0.155 | 0.131 |
| 950 | 0.202 | 0.208 | 0.164 | 0.137 |
| 900 | 0.227 | 0.226 | 0.178 | 0.149 |
| 850 | 0.261 | 0.249 | 0.197 | 0.164 |
| 800 | 0.306 | 0.277 | 0.220 | 0.182 |
| 750 | 0.357 | 0.305 | 0.248 | 0.203 |
| 700 | 0.410 | 0.346 | 0.281 | 0.227 |
| 650 | 0.470 | 0.421 | 0.318 | 0.275 |
| 600 | 0.581 | 0.535 | 0.361 | 0.358 |
| 550 | 0.778 | 0.686 | 0.443 | 0.469 |
| 500 | 1.135 | 0.921 | 0.623 | 0.613 |
| 450 | 1.700 | 1.433 | 0.928 | 0.864 |
| 400 | 2.582 | 2.150 | 1.455 | 1.217 |
| 350 | 3.945 | 3.303 | 2.211 | 1.706 |
| 300 | 5.790 | 4.857 | 3.517 | 2.912 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 667.6 | 658.9 | 703.0 | 835.1 |
| 900 | 590.4 | 618.9 | 607.7 | 570.3 |
| 850 | 513.3 | 579.0 | 523.7 | 502.1 |
| 800 | 436.2 | 530.7 | 447.0 | 458.0 |
| 750 | 374.5 | 444.5 | 421.6 | 413.8 |
| 700 | 338.5 | 338.6 | 396.2 | 369.7 |
| 650 | 301.5 | 242.3 | 370.7 | 292.3 |
| 600 | 221.9 | 198.3 | 345.3 | 186.1 |
| 550 | 167.8 | 180.0 | 191.7 | 178.2 |
| 500 | 138.0 | 157.7 | 135.0 | 169.6 |
| 450 | 125.6 | 123.1 | 122.0 | 155.5 |
| 400 | 119.7 | 120.8 | 118.2 | 141.4 |
| 350 | 124.0 | 121.4 | 115.1 | 126.1 |
| 300 | 158.3 | 157.4 | 108.9 | 87.9 |
| LONG | -61.18 | -60.89 | -60.58 | -60.24 |
| LAT | -29.41 | -31.35 | -33.29 | -35.23 |
| QUAL | 23 | 23 | 23 | 23 |

PASS 3391 AT SOLANT, 63 6 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 182210 | 182246 | 182338 |
| 1000 | 0.202 | 0.189 | 0.162 |
| 950 | 0.224 | 0.208 | 0.177 |
| 900 | 0.248 | 0.230 | 0.193 |
| 850 | 0.274 | 0.258 | 0.214 |
| 800 | 0.306 | 0.290 | 0.239 |
| 750 | 0.344 | 0.329 | 0.268 |
| 700 | 0.392 | 0.380 | 0.299 |
| 650 | 0.456 | 0.452 | 0.347 |
| 600 | 0.552 | 0.564 | 0.435 |
| 550 | 0.707 | 0.760 | 0.600 |
| 500 | 0.978 | 1.098 | 0.826 |
| 450 | 1.584 | 1.712 | 1.250 |
| 400 | 2.762 | 2.748 | 1.928 |
| 350 | 4.756 | 4.412 | 3.085 |
| 300 | 7.504 | | 4.782 |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 488.8 | 483.9 | 570.6 |
| 900 | 481.2 | 454.1 | 523.8 |
| 850 | 476.6 | 438.5 | 493.9 |
| 800 | 438.0 | 412.9 | 476.8 |
| 750 | 395.8 | 380.2 | 455.4 |
| 700 | 351.9 | 324.8 | 389.2 |
| 650 | 303.5 | 262.6 | 294.1 |
| 600 | 244.7 | 203.1 | 210.1 |
| 550 | 189.0 | 155.8 | 155.1 |
| 500 | 135.9 | 124.5 | 140.3 |
| 450 | 96.3 | 109.6 | 123.0 |
| 400 | 87.7 | 102.4 | 110.2 |
| 350 | 104.5 | 114.1 | 107.1 |
| 300 | 111.6 | | 125.7 |
| LONG | -61.60 | -61.52 | -60.89 |
| LAT | -26.46 | -28.46 | -31.35 |
| QUAL | 23 | 33 | 33 |

PASS 3398 AT QUITOE 63 6 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 72604 | 72755 | 72830 | 72905 | 72940 | 73050 | 73143 | 73218 |
| 1000 | 0.117 | 0.119 | 0.161 | 0.154 | 0.150 | 0.119 | 0.121 | 0.119 |
| 950 | 0.127 | 0.130 | 0.172 | 0.171 | 0.165 | 0.132 | 0.133 | 0.133 |
| 900 | 0.135 | 0.136 | 0.180 | 0.179 | 0.174 | 0.138 | 0.142 | 0.140 |
| 850 | 0.142 | 0.144 | 0.187 | 0.185 | 0.188 | 0.144 | 0.148 | 0.146 |
| 800 | 0.151 | 0.153 | 0.196 | 0.198 | 0.195 | 0.151 | 0.154 | 0.152 |
| 750 | 0.162 | 0.163 | 0.207 | 0.221 | 0.206 | 0.157 | 0.163 | 0.159 |
| 700 | 0.179 | 0.179 | 0.221 | 0.255 | 0.221 | 0.166 | 0.173 | 0.168 |
| 650 | 0.201 | 0.199 | 0.260 | 0.316 | 0.274 | 0.181 | 0.186 | 0.183 |
| 600 | 0.245 | 0.252 | 0.342 | 0.417 | 0.369 | 0.216 | 0.211 | 0.217 |
| 550 | 0.320 | 0.369 | 0.517 | 0.563 | 0.501 | 0.299 | 0.280 | 0.275 |
| 500 | 0.486 | 0.674 | 0.749 | 0.820 | 0.724 | 0.443 | 0.439 | 0.390 |
| 450 | 0.795 | 0.984 | 1.119 | 1.226 | 1.108 | 0.753 | 0.695 | 0.609 |
| 400 | 1.321 | 1.623 | | 1.833 | 1.730 | 1.293 | 1.124 | 0.958 |
| 350 | 2.126 | | | | | | | |
| 300 | 2.991 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 901.5 | 1013.9 | 1169.0 | 924.9 | 837.9 | 928.6 | 679.2 | 714.1 |
| 900 | 871.0 | 971.2 | 1195.4 | 1739.0 | 4381.4 | 1127.1 | 1105.9 | 1056.6 |
| 850 | 851.3 | 872.4 | 1072.3 | 1111.2 | 1288.9 | 1134.4 | 1267.9 | 1409.0 |
| 800 | 723.6 | 757.3 | 930.3 | 732.8 | 1391.3 | 1191.3 | 1044.1 | 1220.5 |
| 750 | 598.9 | 634.4 | 788.2 | 457.7 | 470.6 | 1050.2 | 901.5 | 999.1 |
| 700 | 483.5 | 503.9 | 646.1 | 316.3 | 426.8 | 735.9 | 758.9 | 740.1 |
| 650 | 368.1 | 373.1 | 188.0 | 201.3 | 209.1 | 488.6 | 596.9 | 450.1 |
| 600 | 250.2 | 237.0 | 154.2 | 175.8 | 157.8 | 216.6 | 308.3 | 241.8 |
| 550 | 156.0 | 95.3 | 134.6 | 156.7 | 149.6 | 131.5 | 131.6 | 179.0 |
| 500 | 116.7 | 108.6 | 130.6 | 133.2 | 130.0 | 114.9 | 114.1 | 130.8 |
| 450 | 102.1 | 105.9 | 109.7 | 124.2 | 114.2 | 93.0 | 109.2 | 112.9 |
| 400 | 100.5 | 114.5 | | 129.3 | 122.9 | 119.5 | 118.2 | 112.5 |
| 350 | 120.4 | | | | | | | |
| 300 | 211.6 | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -83.34 | -82.75 | -82.55 | -82.36 | -82.16 | -81.75 | -81.42 | -81.19 |
| LAT | 0.48 | 6.76 | 8.73 | 10.71 | 12.69 | 16.65 | 19.65 | 21.62 |
| QUAL | 23 | 33 | 33 | 33 | 33 | 33 | 33 | 3 |

PASS 3398 AT QUITOE, 63 6 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 73253 | 73403 |
| 1000 | 0.108 | 0.109 |
| 950 | 0.122 | 0.123 |
| 900 | 0.130 | 0.128 |
| 850 | 0.133 | 0.133 |
| 800 | 0.138 | 0.139 |
| 750 | 0.147 | 0.146 |
| 700 | 0.159 | 0.156 |
| 650 | 0.173 | 0.174 |
| 600 | 0.195 | 0.205 |
| 550 | 0.263 | 0.284 |
| 500 | 0.378 | 0.427 |
| 450 | 0.582 | 0.712 |
| 400 | 0.963 | 1.109 |
| 350 | | |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 900 | | 1237.2 |
| 850 | 1649.8 | 1094.7 |
| 800 | 1212.1 | 1035.3 |
| 750 | 941.4 | 837.8 |
| 700 | 684.9 | 642.3 |
| 650 | 535.8 | 451.3 |
| 600 | 303.5 | 240.5 |
| 550 | 165.3 | 134.7 |
| 500 | 138.6 | 112.3 |
| 450 | 112.3 | 106.4 |
| 400 | 117.2 | 119.2 |
| 350 | | |
| 300 | | |

| | | |
|---|---|---|
| LONG | -80.95 | -80.43 |
| LAT | 23.60 | 27.54 |
| QUAL | 33 | 33 |

PASS 3399 AT OTTAWA, 63 6 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 73420 | 73513 | 73604 | 74229 | 74322 | 74415 |
| 1000 | 0.128 | 0.112 | 0.061 | 0.056 | 0.044 | 0.126 |
| 950 | 0.142 | 0.128 | 0.074 | 0.068 | 0.061 | 0.151 |
| 900 | 0.150 | 0.134 | 0.078 | 0.075 | 0.079 | 0.171 |
| 850 | 0.157 | 0.141 | 0.082 | 0.087 | 0.100 | 0.193 |
| 800 | 0.164 | 0.148 | 0.087 | 0.099 | 0.119 | 0.224 |
| 750 | 0.173 | 0.157 | 0.093 | 0.116 | 0.140 | 0.259 |
| 700 | 0.184 | 0.170 | 0.102 | 0.138 | 0.164 | 0.298 |
| 650 | 0.201 | 0.188 | 0.114 | 0.165 | 0.195 | 0.355 |
| 600 | 0.238 | 0.219 | 0.137 | 0.197 | 0.233 | 0.432 |
| 550 | 0.313 | 0.296 | 0.178 | 0.246 | 0.286 | 0.525 |
| 500 | 0.463 | 0.405 | 0.248 | 0.321 | 0.350 | 0.649 |
| 450 | 0.799 | 0.634 | 0.376 | 0.437 | 0.452 | 0.806 |
| 400 | 1.222 | 0.993 | 0.634 | 0.600 | 0.590 | 1.044 |
| 350 | | | 1.023 | 0.844 | 0.802 | 1.373 |
| 300 | | | | 1.181 | 1.101 | 1.814 |
| **HEIGHT** | **SCALE HEIGHT, KM** | | | | | |
| 900 | 1070.1 | 1065.1 | 972.8 | 401.6 | | 398.1 |
| 850 | 1058.0 | 1001.7 | 876.8 | 355.9 | | 372.4 |
| 800 | 1012.9 | 933.3 | 810.9 | 346.7 | 289.1 | 344.2 |
| 750 | 876.5 | 717.8 | 603.1 | 316.9 | 298.1 | 324.4 |
| 700 | 692.4 | 553.3 | 497.3 | 287.8 | 298.4 | 305.5 |
| 650 | 469.7 | 447.1 | 393.9 | 271.5 | 280.1 | 289.5 |
| 600 | 262.0 | 234.5 | 272.3 | 255.1 | 261.6 | 274.5 |
| 550 | 145.9 | 162.7 | 173.5 | 217.5 | 243.2 | 259.4 |
| 500 | 102.9 | 137.1 | 137.2 | 174.4 | 224.7 | 238.8 |
| 450 | 108.5 | 113.1 | 110.8 | 158.6 | 203.6 | 215.1 |
| 400 | 136.3 | 124.5 | 100.0 | 156.4 | 181.9 | 193.2 |
| 350 | | | 128.8 | 149.1 | 168.6 | 181.4 |
| 300 | | | | 166.2 | 155.7 | 198.4 |
| LONG | -80.29 | -79.84 | -79.37 | -73.31 | -71.82 | -70.03 |
| LAT | 28.50 | 31.48 | 34.35 | 55.74 | 58.62 | 61.47 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3412 AT STJOHN, 63 6 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 63327 | 63344 | 63402 | 63420 | 63437 | 63455 | 63512 | 63547 |
| 1000 | 0.031 | 0.032 | 0.018 | 0.018 | 0.031 | 0.043 | 0.054 | 0.096 |
| 950 | 0.041 | 0.043 | 0.029 | 0.028 | 0.042 | 0.059 | 0.067 | 0.114 |
| 900 | 0.047 | 0.050 | 0.036 | 0.036 | 0.053 | 0.072 | 0.081 | 0.132 |
| 850 | 0.055 | 0.060 | 0.044 | 0.045 | 0.066 | 0.087 | 0.097 | 0.152 |
| 800 | 0.064 | 0.071 | 0.054 | 0.056 | 0.081 | 0.104 | 0.115 | 0.175 |
| 750 | 0.075 | 0.086 | 0.066 | 0.069 | 0.098 | 0.126 | 0.138 | 0.204 |
| 700 | 0.089 | 0.104 | 0.083 | 0.087 | 0.123 | 0.154 | 0.166 | 0.242 |
| 650 | 0.109 | 0.124 | 0.104 | 0.111 | 0.152 | 0.188 | 0.204 | 0.290 |
| 600 | 0.133 | 0.150 | 0.129 | 0.141 | 0.188 | 0.231 | 0.254 | 0.351 |
| 550 | 0.163 | 0.195 | 0.171 | 0.182 | 0.241 | 0.291 | 0.325 | 0.428 |
| 500 | 0.205 | 0.250 | 0.229 | 0.238 | 0.312 | 0.361 | 0.420 | 0.543 |
| 450 | 0.255 | 0.316 | 0.302 | 0.307 | 0.398 | 0.466 | 0.560 | 0.713 |
| 400 | 0.340 | 0.421 | 0.435 | 0.405 | 0.517 | 0.598 | 0.761 | 0.960 |
| 350 | | 0.558 | 0.609 | 0.531 | 0.672 | 0.773 | 1.047 | 1.261 |
| 300 | | 0.737 | 0.852 | 0.700 | 0.890 | 1.015 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 900 | 336.0 | 270.4 | | | | 252.0 | 271.3 | 343.4 |
| 850 | 324.6 | 270.6 | 231.7 | 220.7 | 235.4 | 258.1 | 277.1 | 346.3 |
| 800 | 313.1 | 270.8 | 232.7 | 222.0 | 235.5 | 257.0 | 281.5 | 334.9 |
| 750 | 301.6 | 263.7 | 232.9 | 218.2 | 235.6 | 254.2 | 269.6 | 310.7 |
| 700 | 287.8 | 256.6 | 224.4 | 214.0 | 230.9 | 249.8 | 256.1 | 292.9 |
| 650 | 270.9 | 249.6 | 215.9 | 209.5 | 226.2 | 245.4 | 235.6 | 276.7 |
| 600 | 254.1 | 241.0 | 207.4 | 204.9 | 221.4 | 238.3 | 217.7 | 259.6 |
| 550 | 237.4 | 227.7 | 193.6 | 200.7 | 215.8 | 226.3 | 203.8 | 231.2 |
| 500 | 221.0 | 214.4 | 178.4 | 196.7 | 209.7 | 214.2 | 189.4 | 196.6 |
| 450 | 204.7 | 201.0 | 164.1 | 192.7 | 203.6 | 207.9 | 173.4 | 181.7 |
| 400 | 156.8 | 187.6 | 156.9 | 186.9 | 194.8 | 202.3 | 163.4 | 176.0 |
| 350 | | 178.9 | 152.3 | 181.2 | 186.2 | 194.3 | 157.6 | 204.0 |
| 300 | | 221.6 | 162.2 | 175.7 | 182.1 | 186.4 | | |
| LONG | -59.36 | -58.99 | -58.59 | -58.11 | -57.66 | -57.18 | -56.66 | -55.51 |
| LAT | 52.90 | 53.83 | 54.82 | 55.80 | 56.73 | 57.71 | 58.63 | 60.52 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 33 |

PASS 3412 AT STJOHN, 63 6 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 63605 | 63623 | 63640 | 63658 | 63715 | 63733 | 63750 | 63808 |
| 1000 | 0.092 | 0.090 | 0.088 | 0.090 | 0.177 | 0.190 | 0.159 | 0.161 |
| 950 | 0.108 | 0.107 | 0.103 | 0.104 | 0.199 | 0.217 | 0.184 | 0.189 |
| 900 | 0.123 | 0.125 | 0.119 | 0.118 | 0.221 | 0.247 | 0.213 | 0.219 |
| 850 | 0.140 | 0.144 | 0.136 | 0.135 | 0.244 | 0.281 | 0.246 | 0.252 |
| 800 | 0.161 | 0.166 | 0.156 | 0.156 | 0.270 | 0.320 | 0.283 | 0.292 |
| 750 | 0.185 | 0.192 | 0.179 | 0.181 | 0.302 | 0.368 | 0.329 | 0.342 |
| 700 | 0.215 | 0.223 | 0.207 | 0.214 | 0.342 | 0.427 | 0.384 | 0.403 |
| 650 | 0.253 | 0.263 | 0.242 | 0.254 | 0.396 | 0.506 | 0.457 | 0.483 |
| 600 | 0.305 | 0.312 | 0.289 | 0.309 | 0.464 | 0.603 | 0.548 | 0.587 |
| 550 | 0.372 | 0.378 | 0.346 | 0.376 | 0.556 | 0.735 | 0.676 | 0.731 |
| 500 | 0.466 | 0.470 | 0.421 | 0.475 | 0.688 | 0.913 | 0.849 | 0.930 |
| 450 | 0.590 | 0.592 | 0.527 | 0.603 | 0.867 | 1.173 | 1.088 | 1.211 |
| 400 | 0.778 | 0.767 | 0.696 | 0.798 | 1.157 | 1.557 | 1.442 | 1.622 |
| 350 | 1.051 | 1.019 | 0.938 | 1.099 | 1.627 | 2.197 | 1.980 | 2.241 |
| 300 | 1.473 | 1.415 | 1.309 | 1.585 | 2.348 | | 2.697 | 3.041 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 900 | 365.3 | 330.7 | 357.6 | 367.6 | 481.6 | 382.6 | 344.8 | 342.5 |
| 850 | 367.2 | 338.7 | 364.8 | 356.0 | 489.8 | 377.7 | 342.9 | 339.9 |
| 800 | 355.9 | 341.0 | 362.3 | 338.3 | 458.4 | 372.0 | 340.9 | 329.3 |
| 750 | 344.6 | 332.7 | 353.0 | 319.9 | 421.1 | 344.1 | 323.9 | 315.3 |
| 700 | 318.9 | 323.3 | 324.0 | 297.1 | 377.5 | 313.7 | 305.9 | 282.7 |
| 650 | 287.7 | 301.3 | 297.8 | 273.3 | 338.3 | 296.8 | 284.2 | 261.3 |
| 600 | 262.0 | 277.1 | 284.6 | 254.5 | 300.4 | 275.5 | 261.3 | 245.1 |
| 550 | 238.1 | 244.9 | 271.5 | 235.7 | 248.4 | 237.9 | 233.5 | 226.6 |
| 500 | 219.5 | 225.9 | 245.1 | 218.0 | 226.4 | 215.8 | 212.2 | 206.1 |
| 450 | 200.6 | 210.9 | 201.4 | 200.5 | 202.4 | 191.2 | 191.4 | 184.3 |
| 400 | 180.5 | 189.9 | 182.4 | 174.0 | 163.1 | 164.8 | 169.9 | 163.5 |
| 350 | 163.4 | 166.6 | 154.6 | 148.1 | 144.4 | 153.5 | 160.7 | 155.5 |
| 300 | 150.3 | 145.9 | 145.8 | 131.9 | 146.9 | | 181.1 | 193.9 |
| LONG | -54.88 | -54.15 | -53.45 | -52.71 | -51.84 | -50.89 | -50.00 | -48.91 |
| LAT | 61.49 | 62.44 | 63.35 | 64.30 | 65.19 | 66.13 | 67.01 | 67.93 |
| QUAL | 33 | 33 | 33 | 32 | 33 | 33 | 33 | 33 |

PASS 3412 AT STJOHN, 63 6 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 63825 | 63858 | 63916 | 63933 | 63951 | 64008 | 64026 |
| 1000 | 0.158 | 0.163 | 0.206 | 0.193 | 0.211 | 0.210 | 0.204 |
| 950 | 0.188 | 0.189 | 0.235 | 0.220 | 0.248 | 0.248 | 0.233 |
| 900 | 0.216 | 0.215 | 0.269 | 0.250 | 0.283 | 0.282 | 0.263 |
| 850 | 0.248 | 0.246 | 0.307 | 0.285 | 0.320 | 0.317 | 0.297 |
| 800 | 0.287 | 0.285 | 0.349 | 0.325 | 0.361 | 0.354 | 0.337 |
| 750 | 0.337 | 0.340 | 0.398 | 0.373 | 0.409 | 0.399 | 0.389 |
| 700 | 0.399 | 0.406 | 0.461 | 0.431 | 0.466 | 0.459 | 0.458 |
| 650 | 0.476 | 0.490 | 0.545 | 0.506 | 0.539 | 0.545 | 0.547 |
| 600 | 0.581 | 0.592 | 0.649 | 0.595 | 0.637 | 0.654 | 0.656 |
| 550 | 0.714 | 0.739 | 0.804 | 0.716 | 0.759 | 0.803 | 0.815 |
| 500 | 0.899 | 0.937 | 1.013 | 0.882 | 0.937 | 0.991 | 1.022 |
| 450 | 1.154 | 1.209 | 1.303 | 1.124 | 1.175 | 1.269 | 1.307 |
| 400 | 1.522 | 1.576 | 1.710 | 1.482 | 1.505 | 1.641 | 1.694 |
| 350 | 2.091 | 2.075 | 2.298 | 2.033 | 1.966 | 2.159 | |
| 300 | 2.913 | 2.754 | 3.102 | 2.828 | 2.641 | 2.875 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 900 | 348.6 | 365.8 | 377.0 | 381.1 | 387.1 | 406.2 | 401.3 |
| 850 | 342.0 | 340.7 | 382.0 | 377.6 | 400.7 | 422.4 | 389.4 |
| 800 | 325.9 | 317.5 | 387.0 | 374.2 | 405.8 | 419.2 | 376.5 |
| 750 | 308.4 | 298.9 | 346.0 | 350.1 | 393.9 | 371.7 | 323.6 |
| 700 | 288.0 | 280.2 | 314.6 | 324.2 | 356.6 | 332.6 | 295.4 |
| 650 | 264.8 | 264.2 | 293.7 | 311.1 | 317.5 | 303.4 | 279.7 |
| 600 | 249.7 | 248.6 | 272.8 | 298.0 | 294.8 | 274.2 | 263.9 |
| 550 | 234.4 | 223.7 | 241.3 | 259.9 | 271.3 | 248.0 | 238.4 |
| 500 | 213.6 | 205.0 | 209.9 | 223.7 | 239.2 | 222.8 | 214.0 |
| 450 | 193.2 | 195.3 | 194.5 | 195.8 | 214.5 | 204.6 | 202.5 |
| 400 | 171.0 | 187.6 | 176.4 | 172.4 | 196.1 | 190.0 | 188.3 |
| 350 | 154.4 | 181.4 | 168.3 | 156.0 | 178.7 | 179.0 | |
| 300 | 165.4 | 181.4 | 171.4 | 166.9 | 165.9 | 178.2 | |
| LONG | -47.73 | -45.44 | -43.79 | -42.18 | -40.47 | -38.56 | -36.17 |
| LAT | 68.79 | 70.45 | 71.32 | 72.13 | 73.00 | 73.78 | 74.58 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3419 AT COLEGE, 63 6 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 190319 | 190354 | 190429 | 190504 | 190539 | 190614 | 190650 | 190725 |
| 1000 | 0.222 | 0.237 | 0.301 | 0.301 | 0.362 | 0.351 | 0.407 | 0.336 |
| 950 | 0.248 | 0.265 | 0.334 | 0.338 | 0.394 | 0.388 | 0.453 | 0.354 |
| 900 | 0.283 | 0.301 | 0.371 | 0.385 | 0.435 | 0.430 | 0.507 | 0.371 |
| 850 | 0.327 | 0.344 | 0.420 | 0.448 | 0.485 | 0.479 | 0.566 | 0.395 |
| 800 | 0.377 | 0.392 | 0.481 | 0.533 | 0.552 | 0.542 | 0.626 | 0.422 |
| 750 | 0.440 | 0.453 | 0.561 | 0.638 | 0.639 | 0.623 | 0.696 | 0.454 |
| 700 | 0.526 | 0.538 | 0.658 | 0.762 | 0.741 | 0.718 | 0.779 | 0.500 |
| 650 | 0.632 | 0.642 | 0.772 | 0.913 | 0.872 | 0.843 | 0.900 | 0.561 |
| 600 | 0.790 | 0.784 | 0.904 | 1.088 | 1.028 | 0.993 | 1.073 | 0.634 |
| 550 | 0.990 | 0.998 | 1.171 | 1.285 | 1.210 | 1.168 | 1.290 | 0.721 |
| 500 | 1.240 | 1.260 | 1.526 | 1.570 | 1.511 | 1.366 | 1.556 | 0.830 |
| 450 | 1.612 | 1.619 | 1.937 | 1.945 | 1.889 | 1.706 | 1.891 | 0.956 |
| 400 | 2.090 | 2.093 | 2.431 | 2.389 | 2.355 | 2.153 | 2.269 | 1.067 |
| 350 | 2.722 | 2.632 | 2.868 | 2.822 | 2.894 | 2.637 | 2.643 | |
| 300 | 3.499 | 2.913 | | 3.196 | 3.372 | 3.096 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 422.6 | 417.4 | 466.9 | 397.4 | 532.1 | 483.7 | 458.6 | 953.5 |
| 900 | 373.8 | 389.8 | 424.6 | 347.1 | 478.5 | 453.2 | 467.1 | 909.5 |
| 850 | 351.6 | 379.2 | 384.0 | 320.7 | 424.9 | 422.6 | 470.7 | 763.8 |
| 800 | 324.4 | 344.8 | 343.4 | 311.3 | 388.9 | 393.3 | 468.6 | 671.5 |
| 750 | 298.9 | 316.1 | 323.8 | 301.9 | 361.1 | 364.3 | 431.7 | 579.3 |
| 700 | 275.8 | 293.0 | 305.4 | 292.5 | 333.3 | 335.3 | 377.3 | 527.3 |
| 650 | 252.6 | 269.9 | 287.1 | 284.9 | 311.5 | 319.5 | 342.6 | 483.5 |
| 600 | 239.5 | 249.1 | 268.7 | 277.4 | 291.3 | 306.2 | 319.6 | 439.8 |
| 550 | 226.8 | 232.5 | 239.8 | 269.9 | 271.1 | 292.8 | 296.6 | 401.5 |
| 500 | 214.0 | 215.8 | 209.3 | 270.8 | 248.2 | 279.4 | 281.9 | 403.2 |
| 450 | 201.1 | 211.5 | 209.7 | 275.2 | 230.3 | 259.8 | 288.0 | 404.8 |
| 400 | 188.8 | 214.5 | 292.6 | 281.4 | 242.1 | 238.8 | 307.5 | 661.0 |
| 350 | 177.7 | 342.2 | 2869.4 | 361.6 | 254.1 | 252.2 | 364.9 | |
| 300 | 925.4 | 1064.7 | | 675.8 | 1998.2 | 1437.9 | | |
| LONG | -158.10 | -147.21 | -138.39 | -130.28 | -124.36 | -119.15 | -114.87 | -111.54 |
| LAT | 80.15 | 79.60 | 78.62 | 77.51 | 76.11 | 74.63 | 72.99 | 71.32 |
| QUAL | 32 | 31 | 31 | 32 | 31 | 31 | 32 | 31 |

PASS 3419 AT COLEGE, 63 6 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 190800 | 190835 | 1909.0 | 190945 | 191020 | 191054 | 191130 | 191205 |
| 1000 | 0.366 | 0.361 | 0.258 | 0.220 | 0.222 | 0.215 | 0.220 | 0.226 |
| 950 | 0.413 | 0.392 | 0.294 | 0.256 | 0.252 | 0.246 | 0.246 | 0.257 |
| 900 | 0.465 | 0.437 | 0.343 | 0.299 | 0.289 | 0.285 | 0.280 | 0.296 |
| 850 | 0.524 | 0.497 | 0.403 | 0.348 | 0.335 | 0.331 | 0.322 | 0.342 |
| 800 | 0.590 | 0.571 | 0.473 | 0.403 | 0.391 | 0.384 | 0.373 | 0.394 |
| 750 | 0.663 | 0.662 | 0.556 | 0.465 | 0.462 | 0.449 | 0.435 | 0.464 |
| 700 | 0.751 | 0.771 | 0.665 | 0.557 | 0.545 | 0.529 | 0.508 | 0.555 |
| 650 | 0.852 | 0.896 | 0.794 | 0.675 | 0.641 | 0.634 | 0.615 | 0.664 |
| 600 | 1.004 | 1.076 | 0.946 | 0.817 | 0.808 | 0.800 | 0.772 | 0.824 |
| 550 | 1.203 | 1.323 | 1.200 | 1.038 | 1.031 | 1.012 | 0.969 | 1.024 |
| 500 | 1.495 | 1.643 | 1.517 | 1.333 | 1.333 | 1.303 | 1.248 | 1.274 |
| 450 | 1.916 | 2.054 | 1.932 | 1.728 | 1.729 | 1.669 | 1.591 | 1.646 |
| 400 | 2.445 | 2.619 | 2.448 | 2.231 | 2.275 | 2.223 | 2.098 | 2.179 |
| 350 | 3.119 | 3.278 | 3.153 | 2.904 | 2.916 | 2.869 | 2.737 | 2.824 |
| 300 | 3.990 | | 3.740 | 3.516 | 3.448 | 3.507 | 3.412 | 3.487 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 416.3 | 557.5 | 361.0 | 329.8 | 375.2 | 359.7 | 425.9 | 366.6 |
| 900 | 420.3 | 441.6 | 329.9 | 329.9 | 347.1 | 348.4 | 375.4 | 357.0 |
| 850 | 423.2 | 393.6 | 311.4 | 335.4 | 328.7 | 336.1 | 353.6 | 342.8 |
| 800 | 417.1 | 359.8 | 302.6 | 319.1 | 310.7 | 322.8 | 331.5 | 316.0 |
| 750 | 407.3 | 335.4 | 293.2 | 299.7 | 295.8 | 302.6 | 308.3 | 295.9 |
| 700 | 376.6 | 318.1 | 280.7 | 281.3 | 280.9 | 280.7 | 285.0 | 278.4 |
| 650 | 345.9 | 300.8 | 268.3 | 262.9 | 266.0 | 257.9 | 261.6 | 260.9 |
| 600 | 304.7 | 276.6 | 255.6 | 244.6 | 239.9 | 233.0 | 238.1 | 247.9 |
| 550 | 261.7 | 248.3 | 233.8 | 224.3 | 211.2 | 209.7 | 215.6 | 235.2 |
| 500 | 236.8 | 229.5 | 212.8 | 203.5 | 196.7 | 201.1 | 205.9 | 218.2 |
| 450 | 225.6 | 217.7 | 210.2 | 196.9 | 190.1 | 193.1 | 196.4 | 186.8 |
| 400 | 213.7 | 228.4 | 212.8 | 197.9 | 195.9 | 191.0 | 192.3 | 191.2 |
| 350 | 205.5 | 342.0 | 238.6 | 223.0 | 264.6 | 220.0 | 215.7 | 215.7 |
| 300 | 317.7 | | 552.5 | 459.7 | 521.3 | 344.7 | 334.0 | 324.2 |
| LONG | -108.55 | -106.33 | -104.25 | -102.56 | -101.07 | -99.78 | -98.64 | -97.60 |
| LAT | 69.61 | 67.82 | 66.02 | 64.19 | 62.34 | 60.53 | 58.59 | 56.70 |
| QUAL | 32 | 32 | 32 | 32 | 32 | 22 | 22 | 22 |

PASS 3419 AT COLEGE, 63 6 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 191223 |
| 1000 | 0.207 |
| 950 | 0.237 |
| 900 | 0.272 |
| 850 | 0.315 |
| 800 | 0.368 |
| 750 | 0.429 |
| 700 | 0.512 |
| 650 | 0.624 |
| 600 | 0.768 |
| 550 | 0.983 |
| 500 | 1.270 |
| 450 | 1.671 |
| 400 | 2.212 |
| 350 | 2.912 |
| 300 | 3.667 |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 364.9 |
| 900 | 350.5 |
| 850 | 336.8 |
| 800 | 318.5 |
| 750 | 294.2 |
| 700 | 272.5 |
| 650 | 252.0 |
| 600 | 231.2 |
| 550 | 208.6 |
| 500 | 191.8 |
| 450 | 184.4 |
| 400 | 184.8 |
| 350 | 200.3 |
| 300 | 305.4 |

| | |
|---|---|
| LONG | -97.15 |
| LAT | 55.72 |
| QUAL | 23 |

PASS 3419 AT FTMYRS, 63 6 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 191957 | 192030 | 192122 | 192157 | 192319 | 192354 | 192429 | 192505 |
| 1000 | 0.270 | 0.263 | 0.271 | 0.272 | 0.292 | 0.303 | 0.321 | 0.359 |
| 950 | 0.306 | 0.301 | 0.312 | 0.311 | 0.341 | 0.353 | 0.372 | 0.412 |
| 900 | 0.353 | 0.345 | 0.359 | 0.361 | 0.397 | 0.410 | 0.435 | 0.480 |
| 850 | 0.409 | 0.396 | 0.414 | 0.420 | 0.464 | 0.479 | 0.510 | 0.563 |
| 800 | 0.473 | 0.458 | 0.481 | 0.487 | 0.544 | 0.560 | 0.602 | 0.663 |
| 750 | 0.564 | 0.537 | 0.563 | 0.580 | 0.657 | 0.676 | 0.728 | 0.803 |
| 700 | 0.681 | 0.651 | 0.681 | 0.697 | 0.806 | 0.826 | 0.893 | 0.995 |
| 650 | 0.845 | 0.799 | 0.837 | 0.859 | 1.018 | 1.040 | 1.105 | 1.261 |
| 600 | 1.078 | 1.001 | 1.058 | 1.081 | 1.307 | 1.334 | 1.423 | 1.701 |
| 550 | 1.461 | 1.302 | 1.392 | 1.451 | 1.754 | 1.815 | 1.910 | 2.470 |
| 500 | 2.064 | 1.796 | 1.935 | 2.031 | 2.510 | 2.691 | 2.875 | 3.818 |
| 450 | 3.060 | 2.649 | 2.859 | 3.079 | 3.895 | 4.280 | 4.777 | 6.288 |
| 400 | | 4.086 | | 5.059 | 6.681 | 7.329 | 8.502 | |
| 350 | | 6.124 | | 8.042 | 10.443 | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 367.3 | 369.3 | 349.7 | 352.7 | 328.8 | 325.8 | 324.6 | 349.0 |
| 900 | 351.2 | 360.9 | 346.6 | 336.8 | 326.7 | 323.1 | 320.0 | 324.8 |
| 850 | 331.5 | 343.7 | 336.7 | 322.2 | 309.6 | 308.4 | 303.5 | 304.9 |
| 800 | 310.3 | 320.9 | 317.5 | 307.8 | 286.1 | 292.1 | 280.0 | 283.9 |
| 750 | 282.9 | 294.9 | 295.0 | 284.0 | 258.7 | 264.5 | 260.0 | 250.8 |
| 700 | 254.4 | 265.6 | 263.1 | 259.5 | 233.8 | 236.2 | 239.4 | 222.5 |
| 650 | 227.6 | 235.3 | 229.3 | 236.7 | 214.5 | 216.8 | 218.4 | 194.0 |
| 600 | 176.9 | 212.0 | 197.8 | 191.0 | 190.6 | 184.4 | 190.9 | 154.3 |
| 550 | 160.5 | 178.0 | 173.1 | 161.5 | 157.8 | 146.7 | 147.6 | 125.5 |
| 500 | 135.0 | 143.7 | 142.0 | 136.5 | 130.4 | 121.0 | 110.2 | 109.5 |
| 450 | 125.1 | 120.2 | 119.8 | 108.8 | 100.0 | 97.6 | 91.7 | 89.6 |
| 400 | | 119.9 | | 99.7 | 95.0 | 97.5 | 95.0 | |
| 350 | | 153.2 | | 138.9 | 214.5 | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -90.67 | -90.23 | -89.83 | -89.57 | -89.02 | -88.81 | -88.60 | -88.38 |
| LAT | 31.68 | 28.71 | 25.80 | 23.84 | 19.24 | 17.28 | 15.31 | 13.28 |
| QUAL | 23 | 33 | 33 | 32 | 32 | 33 | 33 | 33 |

PASS 3419 AT FTMYRS, 63 6 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 192540 | 192708 | 192743 | 192818 | 192853 |
| 1000 | 0.369 | 0.457 | 0.464 | 0.451 | 0.446 |
| 950 | 0.432 | 0.526 | 0.530 | 0.520 | 0.506 |
| 900 | 0.510 | 0.613 | 0.613 | 0.597 | 0.581 |
| 850 | 0.604 | 0.720 | 0.712 | 0.689 | 0.671 |
| 800 | 0.721 | 0.846 | 0.842 | 0.807 | 0.775 |
| 750 | 0.865 | 1.022 | 1.009 | 0.961 | 0.898 |
| 700 | 1.109 | 1.257 | 1.212 | 1.167 | 1.071 |
| 650 | 1.441 | 1.583 | 1.521 | 1.451 | 1.288 |
| 600 | 1.954 | 2.040 | 2.006 | 1.852 | 1.620 |
| 550 | 2.783 | 2.783 | 2.836 | 2.469 | 2.198 |
| 500 | 4.303 | 4.260 | 4.232 | 3.588 | 3.250 |
| 450 | 7.297 | 6.840 | 6.454 | 5.506 | 5.020 |
| 400 | 11.701 | 10.216 | 9.382 | 8.091 | 7.450 |
| 350 | | | | | |
| 300 | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | |
|---|---|---|---|---|---|
| 950 | 313.2 | 339.2 | 360.7 | 360.3 | 371.6 |
| 900 | 303.0 | 319.6 | 334.1 | 348.6 | 350.9 |
| 850 | 284.3 | 302.6 | 315.9 | 327.4 | 341.8 |
| 800 | 263.5 | 286.4 | 296.0 | 304.5 | 332.7 |
| 750 | 240.7 | 260.5 | 273.6 | 280.7 | 320.8 |
| 700 | 209.2 | 232.0 | 244.2 | 246.3 | 292.8 |
| 650 | 180.5 | 212.5 | 208.4 | 219.1 | 239.5 |
| 600 | 155.6 | 180.8 | 165.4 | 193.9 | 193.7 |
| 550 | 129.3 | 145.0 | 137.0 | 157.0 | 147.4 |
| 500 | 104.0 | 108.0 | 119.2 | 121.3 | 120.8 |
| 450 | 94.1 | 109.1 | 123.2 | 117.1 | 115.5 |
| 400 | 143.6 | 174.4 | 146.6 | 168.3 | 160.8 |
| 350 | | | | | |
| 300 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LONG | -88.18 | -87.71 | -87.52 | -87.34 | -87.16 |
| LAT | 11.31 | 6.37 | 4.40 | 2.43 | 0.46 |
| QUAL | 33 | 32 | 33 | 31 | 31 |

PASS 3419 AT AGASTA, 63 6 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 193807 | 193842 | 193934 | 194009 | 194102 | 194155 | 194230 |
| 1000 | 0.160 | 0.150 | 0.131 | 0.119 | 0.104 | 0.116 | 0.118 |
| 950 | 0.173 | 0.162 | 0.139 | 0.127 | 0.110 | 0.121 | 0.123 |
| 900 | 0.188 | 0.175 | 0.150 | 0.137 | 0.119 | 0.128 | 0.131 |
| 850 | 0.206 | 0.190 | 0.162 | 0.149 | 0.131 | 0.136 | 0.143 |
| 800 | 0.227 | 0.209 | 0.176 | 0.164 | 0.147 | 0.145 | 0.157 |
| 750 | 0.250 | 0.231 | 0.193 | 0.180 | 0.163 | 0.160 | 0.174 |
| 700 | 0.278 | 0.258 | 0.216 | 0.201 | 0.184 | 0.181 | 0.193 |
| 650 | 0.314 | 0.296 | 0.248 | 0.230 | 0.215 | 0.206 | 0.215 |
| 600 | 0.367 | 0.359 | 0.294 | 0.268 | 0.262 | 0.247 | 0.260 |
| 550 | 0.436 | 0.472 | 0.353 | 0.353 | 0.326 | 0.319 | 0.328 |
| 500 | 0.600 | 0.628 | 0.473 | 0.469 | 0.418 | 0.419 | 0.431 |
| 450 | 0.849 | 0.832 | 0.654 | 0.644 | 0.573 | 0.571 | 0.563 |
| 400 | 1.190 | 1.[illegible]6 | 0.910 | 0.895 | 0.823 | 0.767 | 0.753 |
| 350 | 1.704 | 1.[illegible]2 | 1.294 | 1.303 | 1.213 | 1.130 | 1.150 |
| 300 | 2.523 | 2.[illegible]9 | 1.792 | 1.938 | 1.931 | 1.813 | 1.900 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 583.1 | 630.4 | 781.5 | 690.3 | 716.7 | 1163.1 | 1061.4 |
| 900 | 571.7 | 612.7 | 687.9 | 629.0 | 645.7 | 880.0 | 840.2 |
| 850 | 544.9 | 565.1 | 610.0 | 580.3 | 574.8 | 767.4 | 619.0 |
| 800 | 516.9 | 520.5 | 552.0 | 529.4 | 504.4 | 649.3 | 533.9 |
| 750 | 485.7 | 478.3 | 498.2 | 474.3 | 443.0 | 472.4 | 485.0 |
| 700 | 436.3 | 399.6 | 409.5 | 412.2 | 359.9 | 387.8 | 436.1 |
| 650 | 361.1 | 309.9 | 324.4 | 339.7 | 287.0 | 327.8 | 387.2 |
| 600 | 297.3 | 246.3 | 281.0 | 267.7 | 258.3 | 271.4 | 290.8 |
| 550 | 234.1 | 215.3 | 237.5 | 227.0 | 229.7 | 220.6 | 196.0 |
| 500 | 183.3 | 185.7 | 179.0 | 186.2 | 197.1 | 177.9 | 185.1 |
| 450 | 148.4 | 166.3 | 152.9 | 160.7 | 156.5 | 166.0 | 174.2 |
| 400 | 145.6 | 148.3 | 145.7 | 144.5 | 137.9 | 154.1 | 158.0 |
| 350 | 134.8 | 131.3 | 140.6 | 133.1 | 121.6 | 128.5 | 116.5 |
| 300 | 125.4 | 114.4 | 135.6 | 126.6 | 97.2 | 94.7 | 91.0 |
| LONG | -83.74 | -83.43 | -82.94 | -82.58 | -82.00 | -81.45 | -80.90 |
| LAT | -30.20 | -30.39 | -34.08 | -37.32 | -40.24 | -43.15 | -44.93 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 3419 AT AGASTA, 63 6 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 194322 | 194414 | 194432 |
| 1000 | 0.081 | 0.079 | 0.083 |
| 950 | 0.086 | 0.085 | 0.087 |
| 900 | 0.093 | 0.092 | 0.096 |
| 850 | 0.102 | 0.100 | 0.107 |
| 800 | 0.114 | 0.110 | 0.117 |
| 750 | 0.128 | 0.122 | 0.133 |
| 700 | 0.143 | 0.137 | 0.155 |
| 650 | 0.163 | 0.153 | 0.183 |
| 600 | 0.195 | 0.172 | 0.216 |
| 550 | 0.240 | 0.224 | 0.273 |
| 500 | 0.311 | 0.314 | 0.352 |
| 450 | 0.402 | 0.429 | 0.447 |
| 400 | 0.572 | 0.573 | 0.650 |
| 350 | 0.854 | 0.788 | 0.959 |
| 300 | 1.373 | 1.266 | 1.365 |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 669.8 | 678.3 | 973.3 |
| 900 | 594.7 | 595.9 | 673.8 |
| 850 | 519.3 | 518.2 | 505.4 |
| 800 | 460.6 | 483.4 | 432.1 |
| 750 | 426.8 | 448.6 | 383.8 |
| 700 | 393.0 | 413.8 | 348.5 |
| 650 | 351.7 | 379.0 | 313.2 |
| 600 | 277.3 | 344.2 | 277.9 |
| 550 | 222.4 | 277.2 | 244.5 |
| 500 | 199.9 | 187.2 | 212.0 |
| 450 | 177.4 | 155.4 | 179.5 |
| 400 | 151.4 | 151.7 | 148.1 |
| 350 | 122.7 | 139.1 | 117.6 |
| 300 | 94.7 | 101.9 | 95.2 |
| LONG | -80.03 | -79.11 | -78.75 |
| LAT | -47.74 | -50.76 | -51.74 |
| QUAL | 23 | 23 | 23 |

PASS 3419 AT SOLANT, 63 6 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 193917 | 194010 | 194120 | 194450 | 194525 | 194618 | 194653 | 194745 |
| 1000 | 0.151 | 0.129 | 0.106 | 0.073 | 0.068 | 0.064 | 0.074 | 0.057 |
| 950 | 0.159 | 0.138 | 0.113 | 0.082 | 0.075 | 0.072 | 0.080 | 0.063 |
| 900 | 0.168 | 0.146 | 0.120 | 0.091 | 0.084 | 0.081 | 0.086 | 0.069 |
| 850 | 0.182 | 0.158 | 0.129 | 0.100 | 0.094 | 0.091 | 0.096 | 0.077 |
| 800 | 0.196 | 0.175 | 0.141 | 0.111 | 0.107 | 0.104 | 0.106 | 0.088 |
| 750 | 0.208 | 0.197 | 0.154 | 0.123 | 0.123 | 0.121 | 0.116 | 0.100 |
| 700 | 0.219 | 0.222 | 0.172 | 0.137 | 0.146 | 0.142 | 0.127 | 0.113 |
| 650 | 0.236 | 0.250 | 0.215 | 0.162 | 0.178 | 0.172 | 0.147 | 0.130 |
| 600 | 0.333 | 0.281 | 0.274 | 0.193 | 0.218 | 0.209 | 0.172 | 0.157 |
| 550 | 0.419 | 0.316 | 0.350 | 0.237 | 0.267 | 0.253 | 0.218 | 0.193 |
| 500 | 0.493 | 0.401 | 0.438 | 0.293 | 0.348 | 0.317 | 0.315 | 0.236 |
| 450 | 0.554 | 0.600 | 0.575 | 0.395 | 0.455 | 0.431 | 0.418 | 0.312 |
| 400 | 0.848 | 0.815 | 0.780 | 0.541 | 0.640 | 0.616 | 0.611 | 0.447 |
| 350 | 1.158 | 1.121 | 1.087 | 0.748 | 0.936 | 0.915 | 1.004 | 0.676 |
| 300 | 1.672 | 1.600 | 1.706 | 1.130 | 1.495 | 1.481 | 2.026 | 1.066 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 859.7 | 790.9 | 765.4 | | 482.1 | 413.1 | 718.9 | 543.2 |
| 900 | 729.0 | 685.6 | 714.3 | 489.8 | 442.2 | 401.1 | 625.9 | 482.6 |
| 850 | 641.3 | 593.9 | 638.0 | 480.8 | 413.9 | 384.5 | 560.6 | 457.1 |
| 800 | 607.1 | 523.9 | 552.3 | 451.2 | 380.8 | 359.0 | 513.2 | 431.7 |
| 750 | 572.8 | 453.9 | 456.3 | 421.5 | 314.6 | 318.4 | 478.7 | 400.8 |
| 700 | 538.6 | 410.0 | 365.3 | 390.6 | 277.6 | 283.4 | 442.9 | 354.5 |
| 650 | 482.2 | 377.5 | 320.0 | 331.8 | 263.0 | 268.7 | 372.3 | 313.0 |
| 600 | 236.9 | 345.0 | 274.8 | 273.0 | 248.4 | 253.9 | 301.7 | 284.4 |
| 550 | 217.3 | 312.4 | 230.2 | 238.8 | 233.8 | 239.2 | 163.3 | 255.8 |
| 500 | 220.0 | 239.9 | 208.2 | 206.7 | 205.0 | 214.1 | 149.2 | 227.3 |
| 450 | 222.8 | 141.2 | 169.0 | 179.1 | 172.9 | 162.5 | 146.6 | 187.9 |
| 400 | 140.8 | 156.8 | 162.2 | 156.0 | 146.8 | 138.0 | 123.7 | 134.8 |
| 350 | 150.4 | 148.3 | 136.4 | 141.9 | 122.7 | 117.6 | 91.1 | 119.6 |
| 300 | 129.1 | 132.0 | 92.1 | 107.7 | 88.7 | 90.1 | 63.8 | 102.6 |
| LONG | -83.10 | -82.57 | -81.74 | -78.39 | -77.59 | -76.21 | -75.19 | -73.35 |
| LAT | -34.43 | -37.37 | -41.23 | -52.72 | -54.62 | -57.48 | -59.35 | -62.11 |
| QUAL | 13 | 23 | 23 | 23 | 12 | 13 | 12 | 23 |

PASS 3426 AT OTTAWA, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 70701 | 70921 | 70956 | 71031 | 71141 | 71216 |
| 1000 | 0.082 | 0.050 | 0.093 | 0.094 | 0.062 | 0.059 |
| 950 | 0.098 | 0.063 | 0.106 | 0.112 | 0.077 | 0.075 |
| 900 | 0.103 | 0.072 | 0.116 | 0.129 | 0.091 | 0.089 |
| 850 | 0.113 | 0.081 | 0.127 | 0.148 | 0.107 | 0.104 |
| 800 | 0.130 | 0.093 | 0.141 | 0.172 | 0.124 | 0.124 |
| 750 | 0.147 | 0.108 | 0.157 | 0.201 | 0.146 | 0.146 |
| 700 | 0.163 | 0.128 | 0.178 | 0.235 | 0.174 | 0.173 |
| 650 | 0.181 | 0.155 | 0.206 | 0.281 | 0.208 | 0.206 |
| 600 | 0.212 | 0.187 | 0.240 | 0.338 | 0.257 | 0.247 |
| 550 | 0.253 | 0.230 | 0.279 | 0.406 | 0.317 | 0.299 |
| 500 | 0.302 | 0.290 | 0.337 | 0.496 | 0.390 | 0.360 |
| 450 | 0.361 | 0.364 | 0.420 | 0.607 | 0.475 | 0.443 |
| 400 | 0.430 | 0.471 | 0.545 | 0.754 | 0.599 | 0.549 |
| 350 | 0.505 | 0.604 | 0.754 | | 0.758 | 0.689 |
| 300 | 0.581 | | | | | 0.872 |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 900 | 866.6 | 404.2 | 557.1 | 354.7 | 307.0 | 289.2 |
| 850 | 651.5 | 373.1 | 507.3 | 341.4 | 311.0 | 299.6 |
| 800 | 454.5 | 342.1 | 467.8 | 328.6 | 309.1 | 294.7 |
| 750 | 418.4 | 311.3 | 428.8 | 311.3 | 296.9 | 291.6 |
| 700 | 400.8 | 288.8 | 392.7 | 294.0 | 279.5 | 290.6 |
| 650 | 383.2 | 273.6 | 361.0 | 285.3 | 263.8 | 280.6 |
| 600 | 348.5 | 258.5 | 328.9 | 276.6 | 253.6 | 267.2 |
| 550 | 311.5 | 243.1 | 296.1 | 266.7 | 243.6 | 260.5 |
| 500 | 289.5 | 227.6 | 252.3 | 253.8 | 238.3 | 253.8 |
| 450 | 284.6 | 212.1 | 211.7 | 223.6 | 233.0 | 243.7 |
| 400 | 308.1 | 207.1 | 175.1 | 153.3 | 207.7 | 232.7 |
| 350 | 309.5 | 207.2 | 145.1 | | 178.2 | 220.4 |
| 300 | 285.7 | | | | | 208.6 |
| LONG | -74.42 | -72.41 | -71.80 | -71.09 | -69.48 | -68.52 |
| LAT | 40.28 | 48.08 | 50.02 | 51.94 | 55.78 | 57.69 |
| QUAL | 33 | 33 | 33 | 32 | 32 | 33 |

PASS 3426 AT OTTAWA, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| - | 71251 |
| 1000 | 0.064 |
| 950 | 0.100 |
| 900 | 0.116 |
| 850 | 0.136 |
| 800 | 0.153 |
| 750 | 0.173 |
| 700 | 0.196 |
| 650 | 0.221 |
| 600 | 0.273 |
| 550 | 0.343 |
| 500 | 0.424 |
| 450 | 0.512 |
| 400 | 0.627 |
| 350 | 0.776 |
| 300 | 0.967 |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 351.7 |
| 900 | 320.7 |
| 850 | 367.6 |
| 800 | 399.3 |
| 750 | 374.7 |
| 700 | 350.2 |
| 650 | 325.6 |
| 600 | 292.5 |
| 550 | 258.0 |
| 500 | 245.9 |
| 450 | 249.7 |
| 400 | 243.6 |
| 350 | 232.7 |
| 300 | 224.4 |

| | |
|---|---|
| LONG | -67.46 |
| LAT | 59.58 |
| QUAL | 33 |

PASS 3426 AT RESLUT, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 71510 | 71528 | 71546 | 71602 | 71620 | 71638 | 71714 | 71748 |
| 1000 | 0.113 | 0.087 | 0.062 | 0.069 | 0.043 | 0.017 | 0.060 | 0.093 |
| 950 | 0.129 | 0.103 | 0.082 | 0.086 | 0.055 | 0.029 | 0.072 | 0.104 |
| 900 | 0.151 | 0.120 | 0.097 | 0.105 | 0.066 | 0.041 | 0.082 | 0.117 |
| 850 | 0.176 | 0.145 | 0.116 | 0.127 | 0.083 | 0.054 | 0.094 | 0.134 |
| 800 | 0.205 | 0.176 | 0.139 | 0.150 | 0.103 | 0.068 | 0.109 | 0.155 |
| 750 | 0.237 | 0.212 | 0.167 | 0.177 | 0.128 | 0.085 | 0.128 | 0.180 |
| 700 | 0.276 | 0.254 | 0.203 | 0.208 | 0.157 | 0.107 | 0.150 | 0.210 |
| 650 | 0.321 | 0.310 | 0.249 | 0.249 | 0.197 | 0.135 | 0.182 | 0.244 |
| 600 | 0.375 | 0.384 | 0.305 | 0.301 | 0.252 | 0.172 | 0.232 | 0.305 |
| 550 | 0.463 | 0.475 | 0.375 | 0.370 | 0.327 | 0.220 | 0.295 | 0.381 |
| 500 | 0.572 | 0.599 | 0.459 | 0.455 | 0.419 | 0.282 | 0.386 | 0.471 |
| 450 | 0.710 | 0.761 | 0.579 | 0.575 | 0.536 | 0.368 | 0.512 | 0.613 |
| 400 | 0.902 | 0.968 | 0.729 | 0.726 | 0.758 | 0.474 | 0.667 | 0.790 |
| 350 | 1.153 | 1.219 | 0.931 | 0.937 | 1.044 | 0.597 | 0.921 | 1.025 |
| 300 | | | 1.200 | 1.214 | 1.443 | 0.849 | 1.295 | 1.416 |
| **HEIGHT** | **SCALE HEIGHT, KM** | | | | | | | |
| 950 | 354.9 | 294.2 | | | | | | 421.6 |
| 900 | 338.8 | 291.5 | 282.4 | | 234.7 | | 362.0 | 392.1 |
| 850 | 332.4 | 272.1 | 276.5 | | 237.0 | | 343.9 | 366.1 |
| 800 | 333.8 | 261.4 | 269.5 | 296.4 | 239.2 | 209.4 | 321.2 | 340.7 |
| 750 | 335.2 | 260.1 | 261.3 | 295.6 | 236.1 | 215.4 | 298.0 | 320.6 |
| 700 | 320.2 | 258.7 | 255.8 | 288.2 | 230.5 | 217.9 | 274.8 | 300.6 |
| 650 | 301.2 | 251.6 | 253.0 | 274.3 | 209.9 | 207.9 | 251.8 | 280.6 |
| 600 | 282.3 | 240.8 | 250.2 | 258.2 | 199.3 | 202.8 | 229.0 | 259.9 |
| 550 | 264.2 | 229.5 | 239.4 | 242.7 | 196.2 | 199.4 | 206.3 | 239.2 |
| 500 | 246.1 | 216.4 | 228.2 | 227.3 | 193.2 | 195.7 | 192.1 | 218.6 |
| 450 | 229.0 | 212.1 | 222.1 | 218.4 | 177.8 | 191.8 | 184.1 | 206.3 |
| 400 | 215.1 | 213.4 | 216.0 | 210.2 | 159.8 | 187.8 | 176.0 | 194.5 |
| 350 | 237.0 | 278.6 | 210.1 | 201.4 | 156.0 | 183.9 | 162.7 | 173.9 |
| 300 | | | 237.7 | 242.2 | 140.0 | 143.2 | 208.8 | 124.6 |
| LONG | -61.26 | -60.12 | -58.98 | -57.93 | -56.47 | -55.01 | -51.58 | -47.59 |
| LAT | 67.04 | 67.96 | 68.88 | 69.69 | 70.54 | 71.39 | 73.07 | 74.62 |
| QUAL | 32 | 32 | 31 | 31 | 33 | 32 | 33 | 32 |

PASS 3426 AT RESLUT, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 71804 | 71822 | 71840 | 71858 | 71917 | 71934 | 71951 | 72007 |
| 1000 | 0.084 | 0.103 | 0.091 | 0.073 | 0.139 | 0.131 | 0.142 | 0.113 |
| 950 | 0.094 | 0.120 | 0.103 | 0.086 | 0.157 | 0.151 | 0.159 | 0.128 |
| 900 | 0.106 | 0.135 | 0.117 | 0.101 | 0.179 | 0.172 | 0.179 | 0.146 |
| 850 | 0.123 | 0.154 | 0.135 | 0.119 | 0.205 | 0.197 | 0.203 | 0.167 |
| 800 | 0.142 | 0.179 | 0.156 | 0.142 | 0.240 | 0.227 | 0.236 | 0.195 |
| 750 | 0.164 | 0.207 | 0.183 | 0.169 | 0.283 | 0.264 | 0.275 | 0.227 |
| 700 | 0.193 | 0.241 | 0.213 | 0.201 | 0.335 | 0.308 | 0.324 | 0.266 |
| 650 | 0.228 | 0.284 | 0.257 | 0.239 | 0.396 | 0.360 | 0.383 | 0.315 |
| 600 | 0.273 | 0.346 | 0.313 | 0.292 | 0.479 | 0.444 | 0.451 | 0.373 |
| 550 | 0.330 | 0.423 | 0.380 | 0.358 | 0.592 | 0.554 | 0.548 | 0.445 |
| 500 | 0.406 | 0.532 | 0.465 | 0.440 | 0.729 | 0.686 | 0.685 | 0.547 |
| 450 | 0.524 | 0.666 | 0.567 | 0.546 | 0.894 | 0.842 | 0.851 | 0.668 |
| 400 | 0.673 | 0.833 | 0.703 | 0.671 | 1.084 | 1.022 | 1.044 | 0.809 |
| 350 | 0.966 | 1.080 | 0.882 | 0.834 | 1.319 | 1.204 | 1.265 | 0.970 |
| 300 | 1.267 | 1.349 | 1.100 | 1.043 | | 1.371 | 1.483 | 1.159 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 448.6 | 364.7 | 395.3 | 302.2 | 393.7 | 365.6 | 424.0 | 393.8 |
| 900 | 400.0 | 380.0 | 369.5 | 297.0 | 365.4 | 365.1 | 392.2 | 370.0 |
| 850 | 355.6 | 361.2 | 347.3 | 293.6 | 340.3 | 355.2 | 365.1 | 347.2 |
| 800 | 341.8 | 342.4 | 327.5 | 293.8 | 323.1 | 339.2 | 342.9 | 332.3 |
| 750 | 327.7 | 325.7 | 310.4 | 294.0 | 305.9 | 320.4 | 320.7 | 317.5 |
| 700 | 308.1 | 309.1 | 293.3 | 279.3 | 290.4 | 299.7 | 305.0 | 305.6 |
| 650 | 288.6 | 287.8 | 281.5 | 263.5 | 275.0 | 279.0 | 290.7 | 295.9 |
| 600 | 268.5 | 259.1 | 271.0 | 256.0 | 264.4 | 267.8 | 276.5 | 286.2 |
| 550 | 248.3 | 235.0 | 260.4 | 248.5 | 256.9 | 257.3 | 266.3 | 276.4 |
| 500 | 226.6 | 229.4 | 250.6 | 243.3 | 250.6 | 247.6 | 259.6 | 266.3 |
| 450 | 201.6 | 223.7 | 241.0 | 241.0 | 259.7 | 267.4 | 252.8 | 257.9 |
| 400 | 176.7 | 220.6 | 235.9 | 238.7 | 257.7 | 287.1 | 257.3 | 266.6 |
| 350 | 270.8 | 231.0 | 232.9 | 234.4 | 459.7 | 346.9 | 269.5 | 275.4 |
| 300 | 2265.8 | 435.9 | 252.1 | 228.8 | | 558.0 | 762.1 | 262.4 |
| LONG | -45.01 | -42.51 | -39.51 | -36.51 | -32.17 | -28.16 | -24.15 | -19.87 |
| LAT | 75.33 | 76.05 | 76.78 | 77.50 | 78.11 | 78.64 | 79.17 | 79.56 |
| QUAL | 32 | 31 | 31 | 31 | 32 | 32 | 32 | 32 |

PASS 3426 AT RESLUT, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 72024 | 72042 | 72100 | 72117 | 72134 | 72152 | 72210 | 72228 |
| 1000 | 0.125 | 0.144 | 0.239 | 0.244 | 0.238 | 0.216 | 0.260 | 0.266 |
| 950 | 0.143 | 0.165 | 0.262 | 0.262 | 0.262 | 0.244 | 0.292 | 0.296 |
| 900 | 0.163 | 0.187 | 0.283 | 0.287 | 0.288 | 0.276 | 0.329 | 0.332 |
| 850 | 0.187 | 0.211 | 0.314 | 0.323 | 0.324 | 0.311 | 0.371 | 0.372 |
| 800 | 0.215 | 0.240 | 0.355 | 0.369 | 0.367 | 0.355 | 0.421 | 0.418 |
| 750 | 0.247 | 0.277 | 0.406 | 0.426 | 0.418 | 0.405 | 0.479 | 0.485 |
| 700 | 0.288 | 0.324 | 0.466 | 0.492 | 0.477 | 0.470 | 0.551 | 0.569 |
| 650 | 0.334 | 0.379 | 0.537 | 0.568 | 0.572 | 0.547 | 0.636 | 0.682 |
| 600 | 0.395 | 0.443 | 0.617 | 0.669 | 0.692 | 0.635 | 0.733 | 0.826 |
| 550 | 0.493 | 0.572 | 0.745 | 0.820 | 0.837 | 0.781 | 0.880 | 1.014 |
| 500 | 0.614 | 0.744 | 0.927 | 1.000 | 1.008 | 0.962 | 1.073 | 1.356 |
| 450 | 0.758 | 0.947 | 1.147 | 1.199 | 1.204 | 1.164 | 1.294 | 1.516 |
| 400 | 0.925 | 1.160 | 1.401 | 1.419 | 1.425 | 1.416 | 1.551 | |
| 350 | 1.113 | 1.390 | 1.649 | | 1.599 | | | |
| 300 | 1.312 | 1.590 | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 378.8 | 382.2 | 587.6 | 618.8 | 497.9 | 409.7 | 431.5 | 462.1 |
| 900 | 371.5 | 392.4 | 531.3 | 489.1 | 470.5 | 402.7 | 415.3 | 439.4 |
| 850 | 362.1 | 385.1 | 465.2 | 433.5 | 434.2 | 394.5 | 398.9 | 413.8 |
| 800 | 349.7 | 352.8 | 398.4 | 377.9 | 397.5 | 371.7 | 384.0 | 372.0 |
| 750 | 334.4 | 329.4 | 369.9 | 355.6 | 359.5 | 349.6 | 369.1 | 337.2 |
| 700 | 314.8 | 309.5 | 352.0 | 337.4 | 322.5 | 331.4 | 351.3 | 302.8 |
| 650 | 295.2 | 289.5 | 334.0 | 319.2 | 305.7 | 313.2 | 333.3 | 273.6 |
| 600 | 280.6 | 269.6 | 316.1 | 301.3 | 288.9 | 295.0 | 315.2 | 247.4 |
| 550 | 276.9 | 254.0 | 290.3 | 283.7 | 277.5 | 280.3 | 295.0 | 257.7 |
| 500 | 273.2 | 239.0 | 259.7 | 270.2 | 284.3 | 265.7 | 274.0 | 462.8 |
| 450 | 269.5 | 233.9 | 250.9 | 293.5 | 295.8 | 253.4 | 273.7 | 1395.0 |
| 400 | 273.7 | 261.9 | 261.0 | 284.9 | 341.7 | 457.8 | 471.1 | |
| 350 | 290.8 | 328.4 | 2013.6 | | 1105.7 | | | |
| 300 | 398.4 | 708.1 | | | | | | |
| LONG | -14.61 | -9.05 | -3.48 | 2.23 | 7.93 | 13.97 | 19.57 | 24.80 |
| LAT | 79.84 | 80.14 | 80.43 | 80.38 | 80.33 | 80.28 | 80.05 | 79.67 |
| QUAL | 32 | 32 | 21 | 22 | 21 | 21 | 31 | 21 |

PASS 3426 AT RESLUT, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 72246 | 72302 | 72321 | 72338 | 72356 |
| 1000 | 0.296 | 0.315 | 0.361 | 0.334 | 0.324 |
| 950 | 0.325 | 0.337 | 0.383 | 0.365 | 0.354 |
| 900 | 0.353 | 0.365 | 0.404 | 0.395 | 0.386 |
| 850 | 0.368 | 0.399 | 0.430 | 0.428 | 0.425 |
| 800 | 0.432 | 0.440 | 0.461 | 0.467 | 0.473 |
| 750 | 0.485 | 0.488 | 0.496 | 0.515 | 0.528 |
| 700 | 0.548 | 0.543 | 0.540 | 0.586 | 0.612 |
| 650 | 0.619 | 0.605 | 0.596 | 0.698 | 0.731 |
| 600 | 0.717 | 0.701 | 0.673 | 0.840 | 0.879 |
| 550 | 0.859 | 0.819 | 0.767 | 1.022 | 1.072 |
| 500 | 1.031 | 0.964 | 0.889 | 1.242 | 1.307 |
| 450 | 1.223 | 1.154 | 1.044 | 1.521 | 1.602 |
| 400 | 1.464 | 1.357 | 1.204 | 1.385 | 1.958 |
| 350 | | | | | 2.244 |
| 300 | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | |
|---|---|---|---|---|---|
| 950 | 553.0 | 698.5 | 869.9 | | 561.3 |
| 900 | 540.6 | 593.9 | 848.9 | 621.5 | 536.0 |
| 850 | 498.4 | 538.6 | 762.3 | 576.2 | 494.1 |
| 800 | 448.2 | 490.6 | 696.7 | 509.0 | 440.7 |
| 750 | 418.3 | 462.2 | 636.8 | 438.8 | 381.8 |
| 700 | 392.5 | 433.8 | 548.5 | 379.1 | 341.5 |
| 650 | 366.6 | 405.5 | 450.5 | 330.4 | 310.4 |
| 600 | 341.8 | 370.5 | 413.0 | 281.8 | 279.3 |
| 550 | 318.4 | 335.1 | 375.5 | 264.7 | 265.0 |
| 500 | 294.9 | 306.7 | 351.6 | 255.1 | 255.7 |
| 450 | 280.9 | 296.5 | 339.0 | 254.4 | 258.7 |
| 400 | 1044.5 | 683.8 | 417.4 | 379.4 | 310.1 |
| 350 | | | | | 554.0 |
| 300 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LONG | 30.03 | 34.53 | 38.61 | 42.27 | 46.14 |
| LAT. | 79.29 | 78.93 | 78.28 | 77.70 | 77.09 |
| QUAL | 32 | 32 | 21 | 32 | 32 |

PASS 3432 AT RESLUT, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 175710 | 175728 | 175748 | 175823 | 175840 | 175858 | 175915 | 175933 |
| 1000 | 0.228 | 0.163 | 0.389 | 0.372 | 0.256 | 0.236 | 0.325 | 0.412 |
| 950 | 0.264 | 0.187 | 0.429 | 0.400 | 0.302 | 0.277 | 0.357 | 0.439 |
| 900 | 0.301 | 0.212 | 0.471 | 0.440 | 0.348 | 0.313 | 0.393 | 0.478 |
| 850 | 0.343 | 0.244 | 0.534 | 0.488 | 0.397 | 0.356 | 0.437 | 0.522 |
| 800 | 0.393 | 0.285 | 0.622 | 0.549 | 0.455 | 0.409 | 0.496 | 0.574 |
| 750 | 0.456 | 0.333 | 0.732 | 0.621 | 0.523 | 0.480 | 0.569 | 0.648 |
| 700 | 0.531 | 0.389 | 0.866 | 0.711 | 0.610 | 0.564 | 0.658 | 0.740 |
| 650 | 0.626 | 0.468 | 1.023 | 0.859 | 0.712 | 0.677 | 0.766 | 0.854 |
| 600 | 0.775 | 0.573 | 1.240 | 1.045 | 0.842 | 0.815 | 0.890 | 0.990 |
| 550 | 0.960 | 0.699 | 1.534 | 1.270 | 1.000 | 0.997 | 1.059 | 1.168 |
| 500 | 1.190 | 0.846 | 1.873 | 1.532 | 1.205 | 1.229 | 1.290 | 1.381 |
| 450 | 1.454 | 1.015 | 2.244 | 1.710 | 1.450 | 1.523 | 1.568 | 1.646 |
| 400 | 1.749 | 1.212 | 2.617 | | 1.740 | 1.883 | 1.898 | 1.976 |
| 350 | 1.996 | 1.439 | | | 2.083 | 2.291 | 2.284 | 2.380 |
| 300 | | 1.707 | | | 2.478 | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 352.3 | 371.3 | 503.1 | 617.5 | | 360.7 | 526.3 | 677.7 |
| 900 | 372.6 | 365.9 | 439.1 | 516.0 | 356.5 | 378.5 | 478.8 | 579.2 |
| 850 | 360.5 | 344.4 | 392.1 | 451.5 | 364.2 | 358.7 | 428.1 | 532.7 |
| 800 | 342.9 | 320.5 | 347.2 | 406.1 | 355.3 | 338.7 | 398.0 | 486.1 |
| 750 | 323.7 | 304.5 | 313.3 | 366.5 | 340.1 | 318.6 | 367.8 | 419.5 |
| 700 | 304.5 | 288.5 | 297.2 | 329.5 | 326.8 | 298.4 | 344.4 | 362.6 |
| 650 | 284.4 | 280.3 | 261.1 | 307.5 | 313.2 | 280.5 | 326.8 | 343.5 |
| 600 | 261.8 | 275.1 | 267.8 | 285.5 | 295.6 | 262.9 | 309.1 | 324.8 |
| 550 | 239.4 | 269.8 | 256.1 | 288.1 | 282.0 | 246.4 | 290.5 | 310.6 |
| 500 | 254.7 | 273.8 | 273.6 | 332.5 | 278.8 | 238.8 | 271.3 | 296.3 |
| 450 | 278.6 | 281.0 | 304.5 | 729.6 | 276.8 | 237.8 | 262.6 | 280.2 |
| 400 | 313.4 | 286.1 | 509.5 | | 278.3 | 248.6 | 265.3 | 276.2 |
| 350 | 867.8 | 290.1 | | | 285.2 | 267.6 | 271.0 | 275.4 |
| 300 | | 297.3 | | | 296.8 | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -112.25 | -109.38 | -106.19 | -101.69 | -99.78 | -97.75 | -96.31 | -94.85 |
| LAT | 76.09 | 76.15 | 75.33 | 73.77 | 72.99 | 72.15 | 71.32 | 70.43 |
| QUAL | 32 | 32 | 32 | 32 | 33 | 33 | 33 | 33 |

PASS 3432 AT RESLUT, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 175951 | 180008 | 180025 | 180043 | 180100 | 180117 | 180135 | 180152 |
| 1000 | 0.357 | 0.272 | 0.381 | 0.410 | 0.445 | 0.350 | 0.341 | 0.370 |
| 950 | 0.366 | 0.310 | 0.426 | 0.451 | 0.492 | 0.388 | 0.373 | 0.421 |
| 900 | 0.400 | 0.342 | 0.480 | 0.493 | 0.546 | 0.417 | 0.409 | 0.486 |
| 850 | 0.445 | 0.384 | 0.540 | 0.542 | 0.604 | 0.456 | 0.454 | 0.558 |
| 800 | 0.514 | 0.440 | 0.610 | 0.602 | 0.666 | 0.506 | 0.510 | 0.636 |
| 750 | 0.602 | 0.520 | 0.693 | 0.673 | 0.746 | 0.579 | 0.576 | 0.726 |
| 700 | 0.711 | 0.618 | 0.793 | 0.758 | 0.840 | 0.667 | 0.650 | 0.828 |
| 650 | 0.844 | 0.734 | 0.921 | 0.866 | 0.984 | 0.767 | 0.741 | 0.953 |
| 600 | 1.010 | 0.868 | 1.081 | 1.006 | 1.180 | 0.880 | 0.873 | 1.113 |
| 550 | 1.225 | 1.042 | 1.304 | 1.196 | 1.436 | 1.041 | 1.051 | 1.319 |
| 500 | 1.500 | 1.293 | 1.596 | 1.434 | 1.765 | 1.281 | 1.296 | 1.599 |
| 450 | 1.828 | 1.629 | 1.966 | 1.729 | 2.186 | 1.578 | 1.583 | 1.971 |
| 400 | 2.120 | 2.013 | 2.409 | 2.100 | | 1.950 | 1.947 | 2.462 |
| 350 | | 2.434 | | 2.547 | | 2.446 | 2.453 | 3.064 |
| 300 | | | | | | | 3.212 | 3.694 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 572.3 | 458.8 | 431.0 | 539.4 | 491.0 | 597.6 | 546.7 | 375.4 |
| 900 | 485.8 | 443.2 | 417.1 | 527.5 | 495.8 | 562.8 | 503.6 | 362.8 |
| 850 | 416.5 | 396.1 | 411.4 | 497.8 | 483.4 | 516.0 | 461.8 | 369.5 |
| 800 | 378.7 | 356.8 | 397.8 | 469.2 | 461.3 | 450.7 | 434.9 | 378.0 |
| 750 | 340.9 | 325.7 | 376.5 | 437.7 | 417.5 | 397.8 | 407.9 | 375.2 |
| 700 | 311.0 | 296.7 | 352.7 | 398.3 | 373.8 | 354.3 | 390.9 | 370.0 |
| 650 | 290.6 | 287.5 | 325.3 | 354.8 | 319.9 | 336.6 | 347.0 | 336.1 |
| 600 | 270.8 | 278.3 | 296.7 | 311.2 | 269.9 | 318.9 | 298.7 | 307.5 |
| 550 | 254.6 | 261.8 | 268.2 | 292.9 | 251.1 | 291.1 | 267.8 | 282.6 |
| 500 | 250.3 | 233.2 | 246.3 | 276.0 | 239.6 | 253.6 | 253.5 | 254.6 |
| 450 | 296.2 | 229.6 | 249.0 | 262.6 | 228.3 | 238.5 | 244.3 | 236.2 |
| 400 | 702.4 | 247.5 | 266.3 | 262.3 | | 231.3 | 228.9 | 229.7 |
| 350 | | 390.3 | | 261.3 | | 228.2 | 204.4 | 248.1 |
| 300 | | | | | | | 209.7 | 307.0 |
| LONG | -93.59 | -92.13 | -91.15 | -90.06 | -89.03 | -88.24 | -87.41 | -86.62 |
| LAT | 69.54 | 68.69 | 67.82 | 66.90 | 66.03 | 65.14 | 64.19 | 63.30 |
| QUAL | 31 | 32 | 23 | 23 | 23 | 33 | 31 | 23 |

PASS 3432 AT RESLUT, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 180211 | 180227 | 180245 | 180303 | 180321 | 180337 | 180354 | 180413 |
| 1000 | 0.371 | 0.363 | 0.353 | 0.371 | 0.269 | 0.246 | 0.237 | 0.227 |
| 950 | 0.438 | 0.404 | 0.402 | 0.407 | 0.330 | 0.289 | 0.268 | 0.260 |
| 900 | 0.525 | 0.456 | 0.455 | 0.450 | 0.386 | 0.341 | 0.316 | 0.305 |
| 850 | 0.621 | 0.522 | 0.524 | 0.505 | 0.453 | 0.395 | 0.369 | 0.358 |
| 800 | 0.727 | 0.609 | 0.609 | 0.573 | 0.538 | 0.463 | 0.426 | 0.421 |
| 750 | 0.861 | 0.723 | 0.720 | 0.676 | 0.647 | 0.545 | 0.505 | 0.516 |
| 700 | 1.019 | 0.858 | 0.867 | 0.802 | 0.792 | 0.641 | 0.601 | 0.633 |
| 650 | 1.231 | 1.024 | 1.059 | 0.952 | 0.979 | 0.780 | 0.739 | 0.788 |
| 600 | 1.495 | 1.260 | 1.292 | 1.153 | 1.220 | 0.970 | 0.915 | 0.996 |
| 550 | 1.829 | 1.566 | 1.571 | 1.421 | 1.521 | 1.220 | 1.142 | 1.280 |
| 500 | 2.253 | 1.954 | 1.899 | 1.761 | 1.912 | 1.534 | 1.418 | 1.643 |
| 450 | 2.593 | 2.418 | 2.282 | 2.156 | 2.377 | 1.937 | 1.744 | 2.094 |
| 400 | 2.838 | | 2.685 | 2.594 | 2.794 | 2.421 | 2.087 | 2.617 |
| 350 | | | 3.014 | 3.033 | | 2.881 | 2.312 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 294.5 | 421.7 | 393.3 | 493.2 | | | 360.5 | 349.2 |
| 900 | 291.2 | 387.6 | 363.5 | 451.6 | 309.6 | 316.4 | 333.3 | 316.4 |
| 850 | 296.7 | 355.8 | 342.1 | 409.8 | 299.4 | 312.4 | 323.1 | 295.1 |
| 800 | 302.5 | 324.9 | 323.0 | 367.4 | 280.1 | 303.5 | 314.8 | 274.6 |
| 750 | 292.7 | 294.6 | 296.2 | 322.6 | 259.4 | 294.2 | 290.7 | 260.5 |
| 700 | 282.9 | 279.6 | 261.9 | 291.0 | 248.4 | 284.9 | 266.6 | 246.4 |
| 650 | 269.1 | 263.4 | 249.5 | 275.4 | 233.1 | 258.3 | 251.1 | 227.3 |
| 600 | 255.1 | 244.0 | 255.5 | 256.1 | 226.2 | 224.9 | 236.7 | 207.3 |
| 550 | 254.3 | 231.6 | 260.0 | 240.1 | 224.3 | 222.6 | 235.6 | 204.0 |
| 500 | 303.4 | 238.4 | 274.3 | 243.2 | 220.6 | 217.3 | 240.4 | 204.3 |
| 450 | 430.5 | 269.0 | 297.1 | 265.8 | 224.6 | 227.9 | 258.2 | 218.3 |
| 400 | 943.4 | | 379.6 | 297.3 | 1036.4 | 258.3 | 372.6 | 242.9 |
| 350 | | | 614.7 | 443.1 | | 295.0 | 611.9 | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -85.65 | -85.26 | -84.61 | -83.97 | -83.44 | -82.97 | -82.47 | -81.98 |
| LAT | 62.29 | 61.44 | 60.47 | 59.51 | 58.54 | 57.67 | 56.75 | 55.72 |
| QUAL | 21 | 22 | 22 | 21 | 21 | 23 | 21 | 23 |

PASS 3432 AT OTTAWA, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 180710 | 180745 | 180820 | 180855 | 181005 | 181040 | 181111 | 181150 |
| 1000 | 0.235 | 0.243 | 0.246 | 0.240 | 0.283 | 0.256 | 0.278 | 0.279 |
| 950 | 0.269 | 0.273 | 0.271 | 0.273 | 0.309 | 0.294 | 0.319 | 0.325 |
| 900 | 0.308 | 0.311 | 0.307 | 0.316 | 0.347 | 0.337 | 0.365 | 0.373 |
| 850 | 0.356 | 0.362 | 0.357 | 0.369 | 0.402 | 0.388 | 0.419 | 0.429 |
| 800 | 0.414 | 0.425 | 0.413 | 0.429 | 0.463 | 0.448 | 0.487 | 0.499 |
| 750 | 0.489 | 0.500 | 0.486 | 0.506 | 0.540 | 0.521 | 0.581 | 0.593 |
| 700 | 0.582 | 0.587 | 0.584 | 0.606 | 0.652 | 0.607 | 0.699 | 0.709 |
| 650 | 0.693 | 0.691 | 0.703 | 0.729 | 0.794 | 0.727 | 0.860 | 0.866 |
| 600 | 0.855 | 0.870 | 0.873 | 0.891 | 0.982 | 0.886 | 1.083 | 1.078 |
| 550 | 1.069 | 1.100 | 1.105 | 1.098 | 1.252 | 1.145 | 1.432 | 1.407 |
| 500 | 1.379 | 1.390 | 1.460 | 1.392 | 1.630 | 1.528 | 1.894 | 1.863 |
| 450 | 1.781 | 1.795 | 1.909 | 1.816 | 2.137 | 2.079 | 2.502 | 2.486 |
| 400 | 2.311 | 2.352 | 2.524 | 2.399 | 2.811 | 2.806 | 3.294 | |
| 350 | | 3.049 | 3.334 | 3.218 | 3.658 | 3.754 | 4.287 | |
| 300 | | | 4.232 | 4.247 | | 4.664 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 365.6 | 393.4 | 450.6 | 357.6 | 488.3 | 367.0 | 361.5 | 343.1 |
| 900 | 348.8 | 358.3 | 378.9 | 336.2 | 401.2 | 358.5 | 362.6 | 352.3 |
| 850 | 331.5 | 331.5 | 335.7 | 332.0 | 346.5 | 348.6 | 335.9 | 332.1 |
| 800 | 314.2 | 309.0 | 311.6 | 305.0 | 323.2 | 336.1 | 303.3 | 305.0 |
| 750 | 298.8 | 296.2 | 292.8 | 290.9 | 299.1 | 319.8 | 285.1 | 289.9 |
| 700 | 284.2 | 284.3 | 277.2 | 280.9 | 273.9 | 300.8 | 267.0 | 274.8 |
| 650 | 269.6 | 270.0 | 261.5 | 269.4 | 249.0 | 266.9 | 235.7 | 245.3 |
| 600 | 241.6 | 237.1 | 229.4 | 248.4 | 225.0 | 227.6 | 201.4 | 210.1 |
| 550 | 214.4 | 214.3 | 200.7 | 226.7 | 202.4 | 194.5 | 184.3 | 189.4 |
| 500 | 198.3 | 206.9 | 185.1 | 203.7 | 187.4 | 171.3 | 178.8 | 174.6 |
| 450 | 194.9 | 190.5 | 183.3 | 183.7 | 185.3 | 166.5 | 182.0 | 170.8 |
| 400 | 189.5 | 188.5 | 179.4 | 177.3 | 184.8 | 164.6 | 184.9 | |
| 350 | | 212.6 | 195.3 | 174.1 | 213.8 | 200.4 | 213.8 | |
| 300 | | | 220.2 | 191.4 | | 268.0 | | |
| LONG | -78.47 | -77.97 | -77.50 | -77.05 | -76.28 | -75.94 | -75.64 | -75.31 |
| LAT | 46.00 | 44.06 | 42.12 | 40.17 | 36.27 | 34.32 | 32.39 | 30.41 |
| QUAL | 23 | 23 | 33 | 33 | 23 | 33 | 23 | 23 |

PASS 3432 AT OTTAWA, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 181225 | 181300 | 181335 | 181410 |
| 1000 | 0.375 | 0.311 | 0.337 | 0.323 |
| 950 | 0.426 | 0.359 | 0.384 | 0.371 |
| 900 | 0.480 | 0.413 | 0.437 | 0.427 |
| 850 | 0.547 | 0.477 | 0.497 | 0.491 |
| 800 | 0.629 | 0.561 | 0.574 | 0.574 |
| 750 | 0.726 | 0.664 | 0.673 | 0.679 |
| 700 | 0.875 | 0.805 | 0.794 | 0.820 |
| 650 | 1.072 | 0.982 | 0.982 | 1.006 |
| 600 | 1.345 | 1.210 | 1.239 | 1.254 |
| 550 | 1.726 | 1.520 | 1.600 | 1.632 |
| 500 | 2.305 | 1.995 | 2.103 | 2.173 |
| 450 | 3.123 | 2.761 | 2.851 | |
| 400 | | 3.736 | 3.833 | |
| 350 | | | 4.877 | |
| 300 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | |
|---|---|---|---|---|
| 950 | 410.6 | 348.2 | 381.6 | 351.8 |
| 900 | 382.3 | 339.5 | 390.8 | 346.2 |
| 850 | 360.0 | 323.7 | 346.0 | 333.4 |
| 800 | 338.8 | 302.8 | 321.7 | 309.1 |
| 750 | 317.5 | 282.4 | 303.4 | 285.1 |
| 700 | 280.6 | 264.7 | 285.1 | 261.3 |
| 650 | 239.4 | 247.7 | 242.5 | 236.3 |
| 600 | 215.5 | 232.4 | 207.2 | 210.6 |
| 550 | 189.1 | 204.7 | 193.1 | 187.0 |
| 500 | 169.8 | 170.5 | 174.5 | 174.5 |
| 450 | 183.4 | 158.6 | 167.1 | |
| 400 | | 174.0 | 183.7 | |
| 350 | | | 254.2 | |
| 300 | | | | |

| | | | | |
|---|---|---|---|---|
| LONG | -75.02 | -74.75 | -74.49 | -74.24 |
| LAT | 28.45 | 26.49 | 24.52 | 22.56 |
| QUAL | 33 | 33 | 33 | 23 |

PASS 3432 AT QUITOE, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 181719 | 181811 | 181846 | 181921 | 181956 | 182031 | 182106 | 182141 |
| 1000 | 0.376 | 0.357 | 0.356 | 0.367 | 0.368 | 0.342 | 0.322 | 0.360 |
| 950 | 0.421 | 0.405 | 0.395 | 0.407 | 0.410 | 0.384 | 0.360 | 0.404 |
| 900 | 0.475 | 0.458 | 0.440 | 0.457 | 0.459 | 0.436 | 0.409 | 0.460 |
| 850 | 0.543 | 0.522 | 0.499 | 0.521 | 0.520 | 0.507 | 0.484 | 0.543 |
| 800 | 0.633 | 0.604 | 0.580 | 0.607 | 0.596 | 0.603 | 0.594 | 0.663 |
| 750 | 0.751 | 0.715 | 0.716 | 0.714 | 0.702 | 0.737 | 0.738 | 0.825 |
| 700 | 0.900 | 0.852 | 0.891 | 0.843 | 0.834 | 0.921 | 0.927 | 1.072 |
| 650 | 1.114 | 1.058 | 1.094 | 1.045 | 1.069 | 1.237 | 1.307 | 1.506 |
| 600 | 1.399 | 1.343 | 1.367 | 1.345 | 1.458 | 1.805 | 1.925 | 2.284 |
| 550 | 1.780 | 1.763 | 1.781 | 1.809 | 2.183 | 2.780 | 3.013 | 3.492 |
| 500 | 2.298 | 2.366 | 2.333 | 2.589 | 3.393 | 4.347 | 4.736 | 5.253 |
| 450 | 3.007 | 3.120 | 3.046 | | | 6.465 | | 7.198 |
| 400 | 3.856 | | | | | | | |
| 350 | 4.606 | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 415.9 | 400.8 | 462.2 | 439.1 | 444.3 | 395.9 | 410.3 | 393.0 |
| 900 | 395.8 | 391.0 | 410.8 | 405.1 | 415.5 | 362.9 | 352.9 | 348.5 |
| 850 | 342.9 | 353.5 | 356.8 | 360.7 | 374.7 | 315.1 | 289.8 | 289.0 |
| 800 | 304.6 | 314.5 | 308.6 | 311.2 | 334.4 | 267.8 | 234.9 | 239.0 |
| 750 | 286.8 | 291.8 | 275.7 | 291.5 | 295.9 | 238.4 | 215.4 | 210.9 |
| 700 | 266.8 | 269.0 | 244.3 | 271.9 | 257.5 | 204.5 | 191.9 | 178.0 |
| 650 | 236.4 | 232.5 | 231.3 | 229.3 | 198.6 | 155.4 | 139.3 | 133.5 |
| 600 | 217.3 | 200.4 | 210.1 | 187.0 | 146.0 | 125.9 | 121.3 | 117.5 |
| 550 | 202.9 | 179.3 | 188.5 | 157.6 | 115.7 | 112.3 | 109.9 | 118.7 |
| 500 | 191.8 | 175.9 | 187.1 | 126.9 | 115.5 | 116.6 | 109.3 | 136.9 |
| 450 | 192.9 | 201.7 | 185.5 | | | 157.1 | | 231.0 |
| 400 | 237.3 | | | | | | | |
| 350 | 471.8 | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -73.08 | -72.79 | -72.60 | -72.42 | -72.23 | -72.05 | -71.87 | -71.69 |
| LAT | 11.94 | 9.02 | 7.05 | 5.08 | 3.11 | 1.15 | -0.81 | -2.77 |
| QUAL | 32 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3432 AT QUITOE, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 182216 | 182252 | 182327 | 182402 | 182437 | 182512 | 182547 | 182622 |
| 1000 | 0.325 | 0.322 | 0.331 | 0.326 | 0.302 | 0.307 | 0.305 | 0.280 |
| 950 | 0.378 | 0.374 | 0.384 | 0.375 | 0.353 | 0.350 | 0.346 | 0.315 |
| 900 | 0.445 | 0.438 | 0.449 | 0.435 | 0.413 | 0.401 | 0.393 | 0.357 |
| 850 | 0.527 | 0.520 | 0.527 | 0.529 | 0.507 | 0.494 | 0.471 | 0.411 |
| 800 | 0.647 | 0.646 | 0.666 | 0.683 | 0.662 | 0.658 | 0.583 | 0.500 |
| 750 | 0.839 | 0.850 | 0.889 | 0.943 | 0.960 | 0.918 | 0.799 | 0.645 |
| 700 | 1.164 | 1.214 | 1.232 | 1.303 | 1.303 | 1.259 | 1.117 | 0.937 |
| 650 | 1.769 | 1.778 | 1.744 | 1.804 | 1.820 | 1.754 | 1.542 | 1.281 |
| 600 | 2.657 | 2.583 | 2.443 | 2.495 | 2.539 | 2.463 | 2.149 | 1.834 |
| 550 | 4.012 | 3.773 | 3.410 | 3.451 | 3.496 | 3.461 | 2.982 | 2.684 |
| 500 | 5.891 | 5.216 | 4.646 | 4.578 | 4.571 | 4.725 | 4.112 | 3.799 |
| 450 | 7.218 | 6.496 | 5.876 | 5.575 | 5.511 | 6.057 | 5.555 | 5.253 |
| 400 | | | | | | 7.064 | 7.167 | 7.011 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 306.4 | 317.2 | 324.5 | 332.2 | 309.3 | 346.3 | 368.5 | 400.8 |
| 900 | 285.9 | 299.0 | 296.9 | 294.0 | 275.6 | 302.4 | 321.1 | 381.1 |
| 850 | 265.2 | 268.4 | 268.0 | 237.1 | 223.8 | 228.1 | 267.8 | 293.4 |
| 800 | 232.3 | 203.4 | 205.2 | 183.1 | 171.9 | 151.4 | 213.3 | 234.1 |
| 750 | 183.4 | 168.2 | 163.7 | 157.8 | 150.0 | 156.3 | 171.3 | 182.9 |
| 700 | 139.6 | 136.9 | 149.2 | 155.2 | 157.6 | 155.5 | 154.3 | 149.4 |
| 650 | 119.9 | 133.0 | 147.2 | 155.6 | 150.6 | 150.6 | 152.9 | 151.1 |
| 600 | 123.4 | 133.3 | 149.6 | 154.2 | 153.4 | 147.2 | 153.3 | 135.5 |
| 550 | 120.9 | 140.2 | 154.7 | 161.3 | 168.3 | 151.8 | 152.7 | 137.7 |
| 500 | 167.9 | 180.5 | 179.6 | 217.4 | 230.7 | 179.5 | 163.2 | 148.2 |
| 450 | 589.3 | 542.7 | 295.0 | 313.5 | 356.4 | 259.0 | 173.1 | 165.4 |
| 400 | | | | | | 499.5 | 256.2 | 191.4 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -71.50 | -71.31 | -71.12 | -70.93 | -70.74 | -70.54 | -70.33 | -70.11 |
| LAT | -4.74 | -6.76 | -8.73 | -10.69 | -12.66 | -14.62 | -16.58 | -18.54 |
| QUAL | 23 | 22 | 23 | 23 | 22 | 22 | 23 | 22 |

PASS 3432 AT QUITOE, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 182720 | 182755 |
| 1000 | 0.252 | 0.240 |
| 950 | 0.284 | 0.269 |
| 900 | 0.324 | 0.305 |
| 850 | 0.374 | 0.354 |
| 800 | 0.438 | 0.415 |
| 750 | 0.536 | 0.499 |
| 700 | 0.721 | 0.619 |
| 650 | 1.041 | 0.865 |
| 600 | 1.566 | 1.277 |
| 550 | 2.468 | 2.002 |
| 500 | 3.818 | 3.272 |
| 450 | 5.633 | 5.126 |
| 400 | 7.809 | 7.574 |
| 350 | 10.530 | 10.722 |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 394.2 | 401.6 |
| 900 | 378.0 | 365.2 |
| 850 | 322.8 | 336.5 |
| 800 | 280.9 | 303.3 |
| 750 | 217.2 | 254.3 |
| 700 | 157.8 | 186.9 |
| 650 | 134.5 | 143.8 |
| 600 | 116.1 | 122.7 |
| 550 | 111.2 | 105.6 |
| 500 | 119.4 | 105.6 |
| 450 | 142.9 | 120.5 |
| 400 | 156.6 | 138.2 |
| 350 | 210.0 | 169.4 |
| 300 | | |

| | | |
|---|---|---|
| LONG | -69.74 | -69.50 |
| LAT | -21.78 | -23.73 |
| QUAL | 23 | 23 |

PASS 3432 AT AGASTA, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 182904 | 182940 | 183015 | 183050 | 183125 |
| 1000 | 0.188 | 0.153 | 0.151 | 0.132 | 0.134 |
| 950 | 0.204 | 0.164 | 0.161 | 0.140 | 0.143 |
| 900 | 0.227 | 0.178 | 0.175 | 0.150 | 0.154 |
| 850 | 0.251 | 0.203 | 0.192 | 0.165 | 0.168 |
| 800 | 0.285 | 0.235 | 0.216 | 0.184 | 0.187 |
| 750 | 0.330 | 0.270 | 0.251 | 0.209 | 0.208 |
| 700 | 0.391 | 0.312 | 0.294 | 0.238 | 0.237 |
| 650 | 0.480 | 0.377 | 0.354 | 0.287 | 0.287 |
| 600 | 0.618 | 0.488 | 0.433 | 0.361 | 0.376 |
| 550 | 0.849 | 0.657 | 0.559 | 0.468 | 0.500 |
| 500 | 1.251 | 0.957 | 0.757 | 0.642 | 0.655 |
| 450 | 2.136 | 1.488 | 1.102 | 0.918 | 0.844 |
| 400 | 3.767 | 2.443 | 1.699 | 1.337 | 1.090 |
| 350 | 6.514 | 4.266 | 2.705 | 1.865 | 1.566 |
| 300 | 10.521 | 7.411 | 4.679 | 2.563 | 2.224 |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | 589.6 | 616.3 | 655.0 | 745.3 | 718.5 |
| 900 | 487.1 | 502.6 | 551.1 | 612.8 | 615.8 |
| 850 | 436.6 | 416.6 | 470.6 | 532.6 | 561.6 |
| 800 | 379.6 | 354.8 | 400.1 | 455.5 | 507.5 |
| 750 | 323.2 | 342.3 | 353.3 | 389.6 | 433.7 |
| 700 | 277.9 | 308.4 | 306.5 | 325.8 | 322.5 |
| 650 | 226.1 | 231.8 | 266.0 | 251.9 | 241.9 |
| 600 | 177.3 | 180.5 | 226.1 | 210.5 | 216.8 |
| 550 | 146.5 | 150.8 | 185.2 | 180.4 | 191.7 |
| 500 | 109.6 | 128.3 | 149.1 | 147.9 | 186.8 |
| 450 | 91.3 | 110.8 | 123.1 | 146.7 | 182.1 |
| 400 | 89.5 | 95.5 | 114.8 | 151.4 | 174.5 |
| 350 | 97.7 | 90.5 | 102.9 | 156.1 | 151.6 |
| 300 | 118.4 | 93.8 | 90.6 | 135.4 | 148.8 |
| LONG | -69.00 | -68.71 | -68.41 | -68.10 | -67.76 |
| LAT | -27.58 | -29.59 | -31.53 | -33.47 | -35.41 |
| QUAL | 23 | 23 | 23 | 23 | 21 |

PASS 3432 AT AGASTA, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 183200 | 183235 | 183310 | 183345 | 183420 | 183455 | 183513 |
| 1000 | 0.121 | 0.107 | 0.125 | 0.121 | 0.114 | 0.100 | 0.075 |
| 950 | 0.126 | 0.112 | 0.131 | 0.126 | 0.117 | 0.104 | 0.080 |
| 900 | 0.135 | 0.119 | 0.139 | 0.132 | 0.121 | 0.111 | 0.086 |
| 850 | 0.146 | 0.127 | 0.147 | 0.142 | 0.129 | 0.120 | 0.094 |
| 800 | 0.158 | 0.137 | 0.158 | 0.156 | 0.141 | 0.129 | 0.103 |
| 750 | 0.174 | 0.153 | 0.170 | 0.169 | 0.154 | 0.144 | 0.114 |
| 700 | 0.197 | 0.173 | 0.185 | 0.183 | 0.174 | 0.163 | 0.127 |
| 650 | 0.234 | 0.199 | 0.216 | 0.213 | 0.205 | 0.190 | 0.141 |
| 600 | 0.294 | 0.240 | 0.262 | 0.278 | 0.246 | 0.228 | 0.176 |
| 550 | 0.373 | 0.297 | 0.324 | 0.341 | 0.297 | 0.274 | 0.220 |
| 500 | 0.507 | 0.399 | 0.401 | 0.406 | 0.357 | 0.350 | 0.284 |
| 450 | 0.685 | 0.576 | 0.592 | 0.612 | 0.426 | 0.497 | 0.377 |
| 400 | 0.952 | 0.833 | 0.883 | 0.902 | 0.706 | 0.704 | 0.557 |
| 350 | 1.332 | 1.189 | 1.273 | 1.225 | 1.114 | 1.034 | 0.830 |
| 300 | 2.066 | 1.931 | 2.001 | 1.993 | 1.760 | 1.734 | 1.391 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 1030.9 | 1029.4 | 937.8 | 1283.2 | 1822.3 | 960.9 | 747.8 |
| 900 | 811.4 | 857.3 | 879.8 | 857.2 | 1073.0 | 781.1 | 608.7 |
| 850 | 652.3 | 684.9 | 735.6 | 666.3 | 733.3 | 655.5 | 537.0 |
| 800 | 562.0 | 538.8 | 657.2 | 562.2 | 595.6 | 552.3 | 498.1 |
| 750 | 464.8 | 475.8 | 578.8 | 507.4 | 495.5 | 460.9 | 459.2 |
| 700 | 362.6 | 412.8 | 500.4 | 452.6 | 359.3 | 371.7 | 420.4 |
| 650 | 288.0 | 349.8 | 369.0 | 369.0 | 283.0 | 315.8 | 381.5 |
| 600 | 243.9 | 285.1 | 246.7 | 250.2 | 265.1 | 280.2 | 303.3 |
| 550 | 199.8 | 219.8 | 217.0 | 218.5 | 247.2 | 244.5 | 223.2 |
| 500 | 179.6 | 176.1 | 187.2 | 200.3 | 229.4 | 208.0 | 184.8 |
| 450 | 161.5 | 151.2 | 161.3 | 167.5 | 211.5 | 169.8 | 156.4 |
| 400 | 150.4 | 135.0 | 136.0 | 142.0 | 148.5 | 137.2 | 138.2 |
| 350 | 135.6 | 125.5 | 123.8 | 133.6 | 105.7 | 119.8 | 116.8 |
| 300 | 111.7 | 94.8 | 96.0 | 95.5 | 92.1 | 78.3 | 82.5 |
| LONG | -67.42 | -67.02 | -66.61 | -66.16 | -65.67 | -65.15 | -64.85 |
| LAT | -37.35 | -39.28 | -41.21 | -43.14 | -45.07 | -46.99 | -47.97 |
| QUAL | 22 | 23 | 23 | 22 | 23 | 22 | 23 |

PASS 3438 AT QUITOE, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 54818 | 55259 |
| 1000 | 0.095 | 0.106 |
| 950 | 0.111 | 0.113 |
| 900 | 0.121 | 0.119 |
| 850 | 0.136 | 0.126 |
| 800 | 0.157 | 0.136 |
| 750 | 0.190 | 0.151 |
| 700 | 0.251 | 0.169 |
| 650 | 0.332 | 0.220 |
| 600 | 0.485 | 0.340 |
| 550 | 0.740 | 0.454 |
| 500 | 1.173 | |
| 450 | 1.907 | |
| 400 | 2.943 | |
| 350 | | |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 586.2 | 1081.5 |
| 900 | 481.4 | 862.6 |
| 850 | 388.7 | 720.9 |
| 800 | 312.5 | 571.5 |
| 750 | 249.3 | 461.4 |
| 700 | 208.1 | 352.7 |
| 650 | 166.8 | 220.2 |
| 600 | 136.0 | 149.1 |
| 550 | 116.0 | 195.6 |
| 500 | 105.4 | |
| 450 | 108.3 | |
| 400 | 162.6 | |
| 350 | | |
| 300 | | |

| | | |
|---|---|---|
| LONG | -63.97 | -62.34 |
| LAT | 4.60 | 20.49 |
| QUAL | 33 | 33 |

PASS 3439 AT FTMYRS, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 55351 | 55426 | 55519 |
| 1000 | 0.071 | 0.073 | 0.064 |
| 950 | 0.079 | 0.081 | 0.069 |
| 900 | 0.084 | 0.086 | 0.073 |
| 850 | 0.090 | 0.091 | 0.078 |
| 800 | 0.098 | 0.099 | 0.084 |
| 750 | 0.107 | 0.110 | 0.091 |
| 700 | 0.120 | 0.123 | 0.104 |
| 650 | 0.141 | 0.140 | 0.122 |
| 600 | 0.183 | 0.186 | 0.164 |
| 550 | 0.268 | 0.265 | 0.234 |
| 500 | 0.437 | 0.414 | 0.347 |
| 450 | 0.757 | 0.704 | 0.583 |
| 400 | 1.316 | 1.218 | 1.042 |
| 350 | 2.262 | 1.975 | |
| 300 | | | |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 861.6 | | 752.4 |
| 900 | 715.7 | 804.9 | 776.3 |
| 850 | 656.0 | 708.1 | 733.2 |
| 800 | 589.5 | 587.7 | 631.4 |
| 750 | 486.9 | 458.2 | 465.8 |
| 700 | 375.1 | 378.9 | 367.2 |
| 650 | 267.5 | 298.2 | 268.6 |
| 600 | 177.6 | 168.5 | 196.8 |
| 550 | 114.5 | 130.7 | 137.5 |
| 500 | 96.3 | 104.4 | 117.5 |
| 450 | 94.5 | 94.5 | 89.3 |
| 400 | 91.6 | 95.7 | 91.6 |
| 350 | 93.2 | 127.5 | |
| 300 | | | |
| LONG | -61.98 | -61.73 | -61.32 |
| LAT | 23.42 | 25.40 | 28.39 |
| QUAL | 33 | 33 | 23 |

PASS 3439 AT OTTAWA, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 60311 | 60346 | 60421 | 60456 | 60531 | 60556 | 60658 |
| 1000 | 0.062 | 0.035 | 0.080 | 0.084 | 0.090 | 0.157 | 0.236 |
| 950 | 0.071 | 0.045 | 0.094 | 0.104 | 0.115 | 0.192 | 0.254 |
| 900 | 0.079 | 0.053 | 0.108 | 0.123 | 0.141 | 0.218 | 0.268 |
| 850 | 0.093 | 0.060 | 0.125 | 0.145 | 0.166 | 0.244 | 0.305 |
| 800 | 0.111 | 0.075 | 0.145 | 0.171 | 0.194 | 0.277 | 0.364 |
| 750 | 0.132 | 0.094 | 0.168 | 0.204 | 0.227 | 0.318 | 0.404 |
| 700 | 0.157 | 0.114 | 0.196 | 0.243 | 0.266 | 0.365 | 0.434 |
| 650 | 0.185 | 0.136 | 0.231 | 0.294 | 0.314 | 0.433 | 0.519 |
| 600 | 0.226 | 0.161 | 0.281 | 0.354 | 0.380 | 0.528 | 0.644 |
| 550 | 0.265 | 0.187 | 0.343 | 0.429 | 0.470 | 0.650 | 0.778 |
| 500 | 0.366 | 0.252 | 0.423 | 0.537 | 0.587 | 0.797 | 0.943 |
| 450 | 0.480 | 0.348 | 0.545 | 0.669 | 0.746 | 0.982 | |
| 400 | 0.657 | 0.474 | 0.699 | 0.852 | 0.948 | 1.245 | |
| 350 | 0.836 | 0.635 | 0.916 | 1.091 | 1.195 | 1.685 | |
| 300 | | 0.887 | 1.187 | 1.388 | 1.494 | 2.365 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 474.4 | 297.6 | 348.5 | 298.7 | | | 862.0 |
| 900 | 387.2 | 292.9 | 341.3 | 301.4 | | 426.1 | 660.8 |
| 850 | 339.8 | 283.8 | 337.8 | 297.0 | | 407.6 | 486.8 |
| 800 | 292.7 | 240.8 | 334.2 | 291.3 | 315.5 | 372.2 | 393.7 |
| 750 | 285.3 | 226.3 | 330.0 | 282.1 | 316.8 | 356.0 | 392.1 |
| 700 | 277.9 | 228.9 | 303.6 | 273.1 | 301.7 | 339.7 | 390.4 |
| 650 | 270.5 | 231.5 | 278.7 | 265.6 | 280.4 | 261.2 | 333.3 |
| 600 | 249.7 | 234.1 | 262.3 | 258.1 | 250.9 | 255.8 | 268.2 |
| 550 | 218.8 | 236.7 | 246.0 | 248.8 | 233.6 | 250.3 | 258.8 |
| 500 | 197.4 | 211.7 | 229.4 | 234.7 | 222.4 | 242.4 | 238.5 |
| 450 | 184.9 | 175.0 | 212.2 | 221.0 | 214.6 | 225.6 | |
| 400 | 186.0 | 161.9 | 197.5 | 210.6 | 212.4 | 191.0 | |
| 350 | 195.0 | 161.8 | 193.6 | 207.5 | 217.2 | 157.7 | |
| 300 | | 162.2 | 195.4 | 225.0 | 425.4 | 149.5 | |
| LONG | -54.81 | -53.91 | -52.89 | -51.80 | -50.46 | -49.48 | -46.41 |
| LAT | 54.70 | 56.61 | 58.51 | 60.40 | 62.27 | 63.61 | 66.85 |
| QUAL | 33 | 33 | 33 | 33 | 32 | 32 | 33 |

PASS 3446 AT RESLUT, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 183416 | 183432 | 183450 | 183507 | 183524 | 183542 | 183559 | 183619 |
| 1000 | 0.236 | 0.209 | 0.219 | 0.211 | 0.218 | 0.204 | 0.216 | 0.340 |
| 950 | 0.260 | 0.234 | 0.243 | 0.237 | 0.253 | 0.224 | 0.250 | 0.367 |
| 900 | 0.292 | 0.266 | 0.273 | 0.274 | 0.294 | 0.250 | 0.284 | 0.399 |
| 850 | 0.335 | 0.304 | 0.310 | 0.313 | 0.338 | 0.283 | 0.323 | 0.437 |
| 800 | 0.398 | 0.353 | 0.358 | 0.357 | 0.389 | 0.331 | 0.366 | 0.493 |
| 750 | 0.473 | 0.414 | 0.419 | 0.409 | 0.452 | 0.390 | 0.422 | 0.562 |
| 700 | 0.561 | 0.490 | 0.495 | 0.479 | 0.533 | 0.461 | 0.491 | 0.653 |
| 650 | 0.668 | 0.579 | 0.585 | 0.567 | 0.630 | 0.543 | 0.587 | 0.764 |
| 600 | 0.859 | 0.684 | 0.710 | 0.673 | 0.758 | 0.641 | 0.712 | 0.894 |
| 550 | 1.104 | 0.866 | 0.882 | 0.834 | 0.936 | 0.809 | 0.876 | 1.083 |
| 500 | 1.411 | 1.097 | 1.103 | 1.043 | 1.168 | 1.023 | 1.093 | 1.335 |
| 450 | 1.826 | 1.383 | 1.379 | 1.309 | 1.460 | 1.298 | 1.382 | 1.675 |
| 400 | 2.351 | 1.735 | 1.716 | 1.632 | 1.832 | 1.637 | 1.772 | 2.105 |
| 350 | 2.922 | 2.153 | 2.127 | 2.036 | 2.279 | 2.074 | 2.260 | 2.649 |
| 300 | | 2.639 | 2.640 | 2.552 | 2.818 | 2.656 | 2.884 | 3.358 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 457.0 | 411.5 | 438.2 | 395.8 | | 483.5 | | 614.4 |
| 900 | 399.2 | 378.6 | 405.9 | 366.7 | 345.0 | 424.0 | 382.9 | 546.7 |
| 850 | 344.9 | 351.7 | 376.0 | 372.6 | 346.0 | 369.0 | 377.0 | 478.8 |
| 800 | 296.6 | 325.5 | 342.8 | 374.4 | 330.5 | 332.6 | 367.7 | 416.9 |
| 750 | 278.7 | 304.4 | 309.8 | 326.8 | 316.1 | 302.9 | 339.3 | 355.3 |
| 700 | 266.2 | 292.8 | 293.5 | 308.1 | 302.4 | 292.0 | 307.6 | 336.5 |
| 650 | 251.5 | 281.3 | 277.3 | 292.0 | 288.8 | 281.1 | 281.9 | 317.6 |
| 600 | 219.3 | 269.1 | 257.8 | 275.9 | 267.6 | 267.9 | 257.9 | 298.7 |
| 550 | 202.6 | 223.3 | 236.1 | 245.4 | 237.2 | 235.0 | 235.3 | 268.7 |
| 500 | 200.5 | 215.4 | 229.3 | 224.3 | 228.9 | 215.1 | 221.1 | 233.8 |
| 450 | 197.3 | 221.0 | 229.7 | 228.8 | 225.8 | 216.3 | 212.0 | 220.5 |
| 400 | 215.1 | 226.1 | 231.8 | 226.8 | 224.5 | 213.4 | 202.8 | 219.8 |
| 350 | 228.9 | 239.2 | 232.8 | 224.4 | 232.8 | 208.0 | 207.7 | 214.7 |
| 300 | | 245.4 | 234.8 | 222.9 | 233.5 | 202.7 | 197.6 | 206.0 |
| LONG | -126.71 | -123.78 | -120.49 | -117.77 | -115.61 | -113.33 | -111.17 | -109.31 |
| LAT | 77.45 | 76.84 | 76.14 | 75.45 | 74.69 | 73.88 | 73.12 | 72.16 |
| QUAL | 23 | 23 | 23 | 33 | 23 | 23 | 33 | 23 |

PASS 3446 AT RESLUT, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 183636 | 183653 | 183711 | 183728 | 183746 | 183804 | 183822 | 183912 |
| 1000 | 0.263 | 0.258 | 0.298 | 0.347 | 0.342 | 0.250 | 0.307 | 0.157 |
| 950 | 0.315 | 0.298 | 0.329 | 0.380 | 0.366 | 0.291 | 0.344 | 0.179 |
| 900 | 0.353 | 0.341 | 0.367 | 0.417 | 0.395 | 0.332 | 0.382 | 0.205 |
| 850 | 0.398 | 0.388 | 0.408 | 0.460 | 0.435 | 0.375 | 0.427 | 0.237 |
| 800 | 0.460 | 0.445 | 0.458 | 0.509 | 0.478 | 0.422 | 0.482 | 0.277 |
| 750 | 0.542 | 0.511 | 0.518 | 0.562 | 0.525 | 0.474 | 0.558 | 0.329 |
| 700 | 0.641 | 0.601 | 0.588 | 0.610 | 0.580 | 0.537 | 0.651 | 0.391 |
| 650 | 0.767 | 0.713 | 0.668 | 0.662 | 0.643 | 0.608 | 0.765 | 0.478 |
| 600 | 0.915 | 0.857 | 0.756 | 0.730 | 0.736 | 0.696 | 0.917 | 0.585 |
| 550 | 1.130 | 1.049 | 0.874 | 0.834 | 0.864 | 0.799 | 1.148 | 0.721 |
| 500 | 1.413 | 1.304 | 1.068 | 0.991 | 1.099 | 0.942 | 1.549 | 0.907 |
| 450 | 1.806 | 1.638 | 1.387 | 1.224 | 1.451 | 1.171 | 2.261 | 1.155 |
| 400 | 2.352 | 2.068 | 1.818 | 1.558 | 1.917 | 1.627 | 3.266 | 1.463 |
| 350 | 2.964 | 2.597 | 2.368 | 2.008 | 2.494 | 2.231 | | 1.833 |
| 300 | | 3.250 | 2.974 | 2.593 | 3.090 | 2.877 | | 2.262 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 443.4 | 361.4 | 472.6 | 550.3 | 691.1 | | 465.7 | 365.9 |
| 900 | 410.0 | 371.8 | 459.7 | 520.6 | 594.1 | | 454.3 | 350.5 |
| 850 | 371.6 | 370.4 | 445.7 | 506.6 | 533.6 | 410.9 | 418.7 | 328.2 |
| 800 | 343.4 | 351.3 | 418.5 | 536.2 | 520.5 | 412.5 | 383.0 | 306.8 |
| 750 | 318.9 | 331.9 | 407.8 | 566.7 | 507.2 | 410.6 | 347.1 | 287.9 |
| 700 | 295.5 | 312.0 | 402.2 | 601.9 | 468.8 | 398.0 | 315.7 | 269.0 |
| 650 | 278.8 | 291.9 | 388.3 | 535.2 | 429.5 | 385.4 | 289.2 | 258.9 |
| 600 | 262.1 | 264.9 | 363.9 | 448.4 | 354.3 | 359.3 | 253.0 | 248.9 |
| 550 | 241.6 | 238.5 | 300.7 | 353.0 | 271.9 | 331.6 | 200.7 | 234.5 |
| 500 | 219.8 | 230.2 | 229.7 | 277.9 | 196.4 | 275.3 | 157.1 | 212.9 |
| 450 | 198.0 | 217.2 | 193.3 | 227.3 | 183.9 | 197.4 | 129.7 | 215.9 |
| 400 | 204.8 | 219.7 | 189.4 | 205.5 | 186.2 | 157.0 | 156.9 | 219.6 |
| 350 | 225.1 | 222.9 | 206.2 | 197.0 | 214.3 | 179.7 | | 231.6 |
| 300 | | 216.4 | 223.9 | 203.3 | 249.4 | 218.3 | | 280.2 |
| LONG | -107.77 | -106.23 | -104.85 | -103.72 | -102.52 | -101.38 | -100.46 | -98.04 |
| LAT | 71.34 | 70.52 | 69.62 | 68.76 | 67.85 | 66.93 | 65.99 | 63.37 |
| QUAL | 23 | 33 | 33 | 33 | 33 | 33 | 33 | 22 |

PASS 3446 AT RESLUT, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 183930 | 184005 | 184022 | 184040 | 184057 | 184115 | 184132 | 184150 |
| 1000 | 0.163 | 0.160 | 0.164 | 0.145 | 0.151 | 0.145 | 0.152 | 0.150 |
| 950 | 0.186 | 0.181 | 0.187 | 0.209 | 0.172 | 0.168 | 0.174 | 0.168 |
| 900 | 0.212 | 0.206 | 0.212 | 0.260 | 0.196 | 0.192 | 0.200 | 0.190 |
| 850 | 0.243 | 0.238 | 0.240 | 0.308 | 0.225 | 0.221 | 0.229 | 0.220 |
| 800 | 0.282 | 0.276 | 0.278 | 0.375 | 0.260 | 0.256 | 0.265 | 0.256 |
| 750 | 0.330 | 0.324 | 0.328 | 0.454 | 0.306 | 0.299 | 0.309 | 0.301 |
| 700 | 0.394 | 0.381 | 0.389 | 0.544 | 0.364 | 0.357 | 0.360 | 0.353 |
| 650 | 0.474 | 0.465 | 0.475 | 0.634 | 0.441 | 0.432 | 0.438 | 0.419 |
| 600 | 0.589 | 0.574 | 0.583 | 0.746 | 0.545 | 0.536 | 0.536 | 0.516 |
| 550 | 0.735 | 0.711 | 0.725 | 0.888 | 0.680 | 0.664 | 0.668 | 0.644 |
| 500 | 0.926 | 0.895 | 0.909 | 1.094 | 0.869 | 0.847 | 0.850 | 0.827 |
| 450 | 1.180 | 1.150 | 1.161 | 1.399 | 1.127 | 1.092 | 1.097 | 1.076 |
| 400 | 1.496 | 1.478 | 1.485 | 1.744 | 1.465 | 1.412 | 1.422 | 1.413 |
| 350 | 1.878 | 1.871 | 1.883 | 2.179 | 1.899 | 1.803 | 1.818 | 1.813 |
| 300 | 2.343 | 2.329 | 2.352 | 2.626 | 2.409 | 2.312 | 2.332 | 2.319 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 375.0 | 388.2 | 389.9 | | 374.3 | 356.7 | 364.8 | 413.5 |
| 900 | 367.6 | 364.9 | 384.1 | | 364.8 | 352.3 | 359.8 | 373.8 |
| 850 | 350.5 | 342.3 | 353.7 | | 346.4 | 341.2 | 346.6 | 345.5 |
| 800 | 328.3 | 320.3 | 328.1 | | 325.1 | 325.6 | 330.5 | 319.5 |
| 750 | 298.9 | 300.0 | 304.7 | 290.5 | 301.8 | 305.5 | 311.2 | 305.4 |
| 700 | 274.7 | 279.7 | 281.2 | 307.0 | 277.6 | 274.6 | 291.9 | 292.1 |
| 650 | 252.2 | 263.5 | 262.6 | 304.7 | 256.2 | 251.7 | 268.8 | 274.0 |
| 600 | 237.8 | 248.1 | 244.5 | 287.0 | 238.3 | 239.8 | 245.4 | 243.0 |
| 550 | 223.9 | 231.1 | 229.4 | 263.6 | 220.0 | 227.8 | 225.1 | 217.1 |
| 500 | 211.6 | 210.3 | 216.1 | 241.6 | 200.7 | 206.2 | 208.2 | 201.7 |
| 450 | 213.7 | 205.9 | 208.3 | 220.7 | 196.1 | 200.5 | 201.4 | 194.1 |
| 400 | 216.9 | 208.3 | 209.0 | 225.6 | 194.2 | 202.1 | 200.6 | 194.3 |
| 350 | 225.4 | 222.1 | 225.0 | 245.2 | 203.2 | 203.0 | 202.3 | 201.9 |
| 300 | 268.5 | 287.9 | 261.1 | 411.5 | 232.2 | 208.6 | 211.0 | 213.2 |
| LONG | -97.33 | -95.98 | -95.44 | -94.87 | -94.33 | -93.85 | -93.41 | -92.95 |
| LAT | 62.41 | 60.55 | 59.64 | 58.67 | 57.75 | 56.77 | 55.85 | 54.87 |
| QUAL | 22 | 22 | 21 | 21 | 21 | 23 | 21 | 12 |

PASS 3446 AT OTTAWA, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 184356 | 184431 | 184506 | 184541 | 184616 | 184651 | 184726 | 184801 |
| 1000 | 0.165 | 0.158 | 0.172 | 0.168 | 0.189 | 0.170 | 0.186 | 0.181 |
| 950 | 0.188 | 0.184 | 0.199 | 0.199 | 0.210 | 0.200 | 0.213 | 0.210 |
| 900 | 0.212 | 0.209 | 0.229 | 0.225 | 0.236 | 0.227 | 0.240 | 0.237 |
| 850 | 0.242 | 0.235 | 0.259 | 0.251 | 0.268 | 0.254 | 0.271 | 0.267 |
| 800 | 0.278 | 0.271 | 0.293 | 0.286 | 0.303 | 0.290 | 0.309 | 0.304 |
| 750 | 0.321 | 0.317 | 0.332 | 0.330 | 0.346 | 0.336 | 0.356 | 0.353 |
| 700 | 0.375 | 0.371 | 0.391 | 0.386 | 0.401 | 0.395 | 0.417 | 0.414 |
| 650 | 0.447 | 0.440 | 0.471 | 0.462 | 0.476 | 0.476 | 0.500 | 0.497 |
| 600 | 0.547 | 0.542 | 0.577 | 0.570 | 0.571 | 0.588 | 0.606 | 0.610 |
| 550 | 0.674 | 0.674 | 0.719 | 0.711 | 0.707 | 0.734 | 0.741 | 0.766 |
| 500 | 0.860 | 0.863 | 0.919 | 0.907 | 0.889 | 0.946 | 0.967 | 0.987 |
| 450 | 1.110 | 1.124 | 1.202 | 1.182 | 1.148 | 1.248 | 1.283 | 1.315 |
| 400 | 1.448 | 1.468 | 1.570 | 1.546 | 1.490 | 1.636 | 1.688 | 1.746 |
| 350 | 1.878 | 1.869 | 2.026 | 1.982 | 1.958 | 2.129 | 2.192 | 2.303 |
| 300 | 2.391 | 2.413 | 2.536 | 2.495 | 2.550 | 2.788 | 2.793 | 2.935 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 395.5 | | | | 444.1 | | 392.6 | 395.6 |
| 900 | 386.3 | 390.3 | 382.7 | 417.1 | 415.4 | 409.3 | 404.5 | 408.3 |
| 850 | 373.5 | 374.2 | 392.7 | 406.8 | 397.4 | 390.9 | 387.2 | 390.9 |
| 800 | 356.8 | 352.2 | 374.6 | 374.9 | 381.2 | 365.9 | 365.6 | 364.3 |
| 750 | 337.5 | 328.0 | 356.5 | 341.6 | 354.1 | 340.8 | 336.3 | 329.8 |
| 700 | 295.3 | 294.9 | 290.8 | 295.2 | 319.7 | 288.6 | 295.6 | 286.4 |
| 650 | 267.9 | 266.8 | 255.5 | 263.8 | 288.3 | 253.2 | 270.4 | 259.7 |
| 600 | 250.6 | 246.8 | 241.1 | 244.4 | 257.7 | 238.2 | 251.0 | 239.8 |
| 550 | 232.6 | 226.4 | 222.9 | 224.4 | 233.3 | 221.2 | 228.6 | 217.1 |
| 500 | 209.1 | 202.3 | 198.7 | 202.1 | 211.2 | 192.7 | 187.5 | 190.7 |
| 450 | 195.5 | 194.6 | 192.6 | 193.4 | 195.5 | 187.3 | 184.3 | 178.9 |
| 400 | 192.2 | 198.5 | 193.3 | 195.7 | 188.8 | 188.2 | 188.3 | 178.8 |
| 350 | 200.8 | 201.3 | 211.8 | 209.9 | 185.4 | 188.7 | 199.6 | 192.2 |
| 300 | 250.4 | 216.7 | 278.7 | 229.5 | 224.4 | 287.7 | 221.3 | 257.4 |
| LONG | -90.40 | -89.85 | -89.33 | -88.86 | -88.43 | -88.02 | -87.66 | -87.30 |
| LAT | 47.96 | 46.02 | 44.09 | 42.14 | 40.20 | 38.25 | 36.30 | 34.35 |
| QUAL | 32 | 22 | 22 | 23 | 32 | 22 | 23 | 22 |

PASS 3446 AT OTTAWA, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 184854 | 184929 | 185021 | 185114 | 185149 |
| 1000 | 0.197 | 0.223 | 0.242 | 0.280 | 0.311 |
| 950 | 0.225 | 0.246 | 0.277 | 0.322 | 0.352 |
| 900 | 0.256 | 0.276 | 0.317 | 0.368 | 0.401 |
| 850 | 0.293 | 0.316 | 0.365 | 0.422 | 0.461 |
| 800 | 0.336 | 0.365 | 0.424 | 0.486 | 0.539 |
| 750 | 0.389 | 0.420 | 0.498 | 0.577 | 0.641 |
| 700 | 0.458 | 0.491 | 0.588 | 0.692 | 0.765 |
| 650 | 0.550 | 0.596 | 0.712 | 0.842 | 0.957 |
| 600 | 0.675 | 0.727 | 0.880 | 1.065 | 1.230 |
| 550 | 0.849 | 0.931 | 1.136 | 1.408 | 1.642 |
| 500 | 1.097 | 1.218 | 1.511 | 1.916 | 2.290 |
| 450 | 1.468 | 1.635 | 2.068 | 2.750 | 3.491 |
| 400 | 1.957 | 2.216 | 2.825 | 4.046 | 5.333 |
| 350 | 2.572 | 2.968 | 3.693 | 5.629 | 7.646 |
| 300 | 3.271 | 3.645 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | 390.0 | 455.0 | 370.0 | 366.9 | 384.5 |
| 900 | 379.4 | 402.6 | 357.2 | 365.1 | 369.7 |
| 850 | 364.3 | 375.2 | 340.3 | 344.9 | 334.6 |
| 800 | 346.8 | 348.3 | 322.0 | 311.8 | 301.6 |
| 750 | 327.3 | 322.1 | 303.3 | 291.1 | 281.8 |
| 700 | 292.1 | 294.8 | 282.8 | 270.8 | 261.9 |
| 650 | 257.5 | 265.6 | 254.0 | 243.7 | 222.7 |
| 600 | 236.0 | 236.4 | 221.1 | 199.3 | 190.3 |
| 550 | 210.4 | 205.2 | 186.7 | 174.9 | 165.1 |
| 500 | 186.9 | 181.8 | 171.1 | 150.9 | 136.6 |
| 450 | 175.5 | 168.7 | 159.6 | 131.7 | 113.7 |
| 400 | 178.2 | 168.4 | 174.9 | 141.5 | 123.5 |
| 350 | 190.9 | 196.4 | 228.3 | 176.4 | 199.3 |
| 300 | 339.0 | 352.4 | | | |
| LONG | -86.81 | -86.52 | -86.11 | -85.72 | -85.49 |
| LAT | 31.39 | 29.43 | 26.51 | 23.55 | 21.59 |
| QUAL | 23 | 32 | 22 | 23 | 23 |

PASS 3446 AT QUITOE, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 185418 | 185453 | 185528 | 185603 | 185638 | 185713 | 185748 | 185823 |
| 1000 | 0.363 | 0.386 | 0.398 | 0.420 | 0.425 | 0.422 | 0.391 | 0.376 |
| 950 | 0.420 | 0.450 | 0.456 | 0.479 | 0.478 | 0.475 | 0.438 | 0.421 |
| 900 | 0.483 | 0.518 | 0.523 | 0.541 | 0.540 | 0.535 | 0.493 | 0.473 |
| 850 | 0.562 | 0.606 | 0.608 | 0.620 | 0.617 | 0.613 | 0.561 | 0.540 |
| 800 | 0.669 | 0.721 | 0.718 | 0.722 | 0.721 | 0.710 | 0.654 | 0.632 |
| 750 | 0.802 | 0.861 | 0.851 | 0.845 | 0.846 | 0.842 | 0.775 | 0.758 |
| 700 | 0.980 | 1.060 | 1.032 | 1.018 | 1.018 | 1.022 | 0.933 | 0.924 |
| 650 | 1.212 | 1.330 | 1.271 | 1.256 | 1.246 | 1.282 | 1.184 | 1.203 |
| 600 | 1.575 | 1.728 | 1.638 | 1.603 | 1.624 | 1.708 | 1.577 | 1.723 |
| 550 | 2.213 | 2.425 | 2.268 | 2.142 | 2.248 | 2.508 | 2.282 | 2.679 |
| 500 | 3.321 | 3.712 | 3.301 | 3.195 | 3.336 | 3.942 | 3.753 | 4.486 |
| 450 | 5.328 | 5.788 | 5.210 | 5.056 | 5.320 | 6.287 | 6.243 | 7.202 |
| 400 | | 9.189 | 8.455 | 7.840 | 7.961 | | 9.170 | |
| 350 | | | 12.193 | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 344.8 | 338.8 | 358.4 | 396.3 | 407.0 | 407.8 | 421.7 | 424.2 |
| 900 | 329.6 | 324.1 | 334.8 | 369.6 | 375.6 | 382.6 | 405.2 | 393.3 |
| 850 | 303.1 | 300.8 | 314.1 | 343.3 | 348.2 | 354.6 | 344.1 | 341.7 |
| 800 | 288.2 | 286.3 | 300.8 | 324.5 | 325.4 | 326.0 | 308.5 | 302.3 |
| 750 | 273.4 | 271.9 | 286.3 | 305.7 | 302.5 | 281.9 | 283.6 | 269.9 |
| 700 | 246.8 | 238.3 | 255.5 | 264.9 | 265.4 | 238.4 | 252.9 | 232.9 |
| 650 | 214.8 | 208.2 | 221.2 | 222.1 | 221.3 | 200.6 | 197.4 | 171.6 |
| 600 | 177.6 | 177.6 | 180.0 | 195.9 | 179.0 | 159.4 | 159.4 | 129.2 |
| 550 | 134.3 | 132.3 | 145.7 | 151.5 | 141.2 | 120.2 | 120.8 | 100.2 |
| 500 | 115.9 | 115.4 | 119.5 | 108.6 | 113.8 | 110.9 | 94.0 | 101.4 |
| 450 | 100.4 | 105.9 | 102.7 | 105.9 | 104.5 | 105.3 | 105.7 | 127.5 |
| 400 | | 126.6 | 118.8 | 128.0 | 162.1 | | 182.2 | |
| 350 | | | 667.6 | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -84.57 | -84.37 | -84.18 | -83.98 | -83.80 | -83.61 | -83.43 | -83.25 |
| LAT | 13.22 | 11.24 | 9.28 | 7.31 | 5.35 | 3.38 | 1.41 | -0.55 |
| QUAL | 23 | 33 | 22 | 23 | 33 | 33 | 23 | 22 |

PASS 3446 AT QUITOE, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 185858 | 185933 | 190008 | 190043 | 190118 | 190153 | 190228 | 190303 |
| 1000 | 0.369 | 0.322 | 0.339 | 0.325 | 0.296 | 0.289 | 0.277 | 0.284 |
| 950 | 0.404 | 0.362 | 0.376 | 0.362 | 0.332 | 0.321 | 0.306 | 0.308 |
| 900 | 0.451 | 0.409 | 0.427 | 0.411 | 0.378 | 0.362 | 0.344 | 0.335 |
| 850 | 0.517 | 0.471 | 0.498 | 0.484 | 0.444 | 0.438 | 0.419 | 0.365 |
| 800 | 0.608 | 0.556 | 0.594 | 0.578 | 0.531 | 0.555 | 0.531 | 0.397 |
| 750 | 0.730 | 0.676 | 0.761 | 0.735 | 0.659 | 0.705 | 0.677 | 0.549 |
| 700 | 0.881 | 0.871 | 1.032 | 0.960 | 0.876 | 0.887 | 0.855 | 0.738 |
| 650 | 1.237 | 1.264 | 1.502 | 1.382 | 1.239 | 1.256 | 1.218 | 0.889 |
| 600 | 1.953 | 1.938 | 2.250 | 1.993 | 1.797 | 1.861 | 1.868 | 1.408 |
| 550 | 3.162 | 3.007 | 3.233 | 2.841 | 2.599 | 2.699 | 2.775 | 2.231 |
| 500 | 5.019 | 4.552 | 4.432 | 3.892 | 3.656 | 3.653 | 3.788 | 3.441 |
| 450 | 7.125 | | 5.524 | 4.913 | 4.671 | 4.614 | 4.873 | 4.807 |
| 400 | | | | | 5.297 | | 5.738 | 6.137 |
| 350 | | | | | | | | 7.089 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 469.7 | 411.5 | 419.0 | 411.9 | 398.9 | 410.4 | 425.3 | 559.8 |
| 900 | 419.9 | 382.6 | 366.3 | 347.0 | 348.4 | 342.1 | 348.5 | 503.3 |
| 850 | 352.8 | 332.8 | 326.6 | 304.9 | 306.0 | 286.3 | 292.5 | 446.7 |
| 800 | 285.2 | 282.6 | 238.6 | 262.7 | 256.0 | 235.5 | 241.1 | 390.2 |
| 750 | 251.5 | 224.2 | 193.0 | 215.9 | 208.0 | 205.1 | 205.1 | 202.3 |
| 700 | 217.4 | 168.1 | 157.1 | 168.7 | 170.9 | 184.8 | 181.5 | 167.8 |
| 650 | 132.2 | 126.5 | 128.0 | 137.6 | 139.9 | 134.4 | 128.5 | 170.7 |
| 600 | 105.5 | 114.5 | 131.0 | 139.9 | 136.4 | 129.4 | 119.5 | 103.8 |
| 550 | 102.9 | 114.8 | 145.2 | 146.6 | 139.3 | 150.1 | 145.9 | 111.2 |
| 500 | 120.9 | 140.8 | 192.1 | 186.1 | 173.7 | 188.9 | 175.8 | 132.2 |
| 450 | 246.0 | | 293.1 | 260.2 | 298.0 | 268.2 | 253.7 | 174.9 |
| 400 | | | | | 519.7 | | 393.5 | 268.1 |
| 350 | | | | | | | | 501.3 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -83.07 | -82.88 | -82.70 | -82.51 | -82.32 | -82.13 | -81.93 | -81.72 |
| LAT | -2.51 | -4.48 | -6.45 | -8.41 | -10.37 | -12.34 | -14.30 | -16.26 |
| QUAL | 23 | 23 | 22 | 23 | 32 | 23 | 22 | 33 |

PASS 3446 AT QUITOE, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 190420 | 190455 | 190547 | 190640 |
| 1000 | 0.279 | 0.286 | 0.261 | 0.226 |
| 950 | 0.300 | 0.309 | 0.286 | 0.248 |
| 900 | 0.331 | 0.337 | 0.314 | 0.275 |
| 850 | 0.363 | 0.372 | 0.345 | 0.306 |
| 800 | 0.409 | 0.416 | 0.380 | 0.341 |
| 750 | 0.481 | 0.472 | 0.434 | 0.385 |
| 700 | 0.592 | 0.544 | 0.504 | 0.445 |
| 650 | 0.767 | 0.661 | 0.600 | 0.526 |
| 600 | 1.064 | 0.911 | 0.751 | 0.652 |
| 550 | 1.715 | 1.303 | 0.993 | 0.869 |
| 500 | 2.915 | 2.243 | 1.521 | 1.218 |
| 450 | 4.805 | 3.823 | 2.585 | 1.857 |
| 400 | 6.980 | 6.324 | 4.496 | 2.851 |
| 350 | 8.959 | | 7.410 | 4.856 |
| 300 | | | | 8.131 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 614.0 | 587.2 | 543.3 | 512.6 |
| 900 | 521.8 | 538.9 | 533.2 | 474.1 |
| 850 | 465.3 | 485.0 | 491.3 | 446.7 |
| 800 | 376.4 | 420.9 | 443.8 | 422.6 |
| 750 | 284.2 | 362.0 | 379.1 | 385.2 |
| 700 | 215.6 | 305.2 | 314.8 | 330.8 |
| 650 | 181.5 | 237.6 | 251.5 | 268.5 |
| 600 | 135.2 | 151.4 | 207.9 | 214.7 |
| 550 | 94.4 | 118.3 | 156.8 | 171.9 |
| 500 | 92.3 | 93.3 | 110.1 | 132.8 |
| 450 | 119.1 | 92.7 | 87.7 | 122.5 |
| 400 | 170.0 | 104.5 | 95.6 | 100.9 |
| 350 | 236.1 | | 100.2 | 99.5 |
| 300 | | | | 107.8 |
| LONG | -81.24 | -81.01 | -80.64 | -80.24 |
| LAT | -20.57 | -22.52 | -25.42 | -28.38 |
| QUAL | 23 | 23 | 33 | 23 |

PASS 3446 AT AGASTA, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 190419 | 190454 | 190529 | 190604 | 190639 | 190714 | 190749 | 190824 |
| 1000 | 0.280 | 0.284 | 0.303 | 0.254 | 0.230 | 0.207 | 0.195 | 0.163 |
| 950 | 0.305 | 0.307 | 0.321 | 0.275 | 0.251 | 0.222 | 0.208 | 0.177 |
| 900 | 0.332 | 0.337 | 0.353 | 0.302 | 0.278 | 0.243 | 0.227 | 0.193 |
| 850 | 0.362 | 0.376 | 0.396 | 0.335 | 0.310 | 0.270 | 0.248 | 0.212 |
| 800 | 0.404 | 0.418 | 0.451 | 0.369 | 0.346 | 0.301 | 0.273 | 0.233 |
| 750 | 0.473 | 0.475 | 0.508 | 0.412 | 0.390 | 0.337 | 0.314 | 0.260 |
| 700 | 0.591 | 0.560 | 0.576 | 0.475 | 0.439 | 0.385 | 0.373 | 0.298 |
| 650 | 0.759 | 0.733 | 0.684 | 0.573 | 0.517 | 0.458 | 0.449 | 0.351 |
| 600 | 1.048 | 0.986 | 0.878 | 0.707 | 0.628 | 0.595 | 0.558 | 0.419 |
| 550 | 1.529 | 1.444 | 1.182 | 0.916 | 0.815 | 0.789 | 0.722 | 0.553 |
| 500 | 2.626 | 2.363 | 1.739 | 1.216 | 1.138 | 1.069 | 0.924 | 0.758 |
| 450 | 4.355 | 4.192 | 2.831 | 1.871 | 1.667 | 1.460 | 1.335 | 1.062 |
| 400 | 6.418 | 6.861 | 4.860 | 3.123 | 2.527 | 2.135 | 1.923 | 1.517 |
| 350 | 8.416 | 9.932 | 7.839 | 5.245 | 4.068 | 3.260 | 2.849 | 2.234 |
| 300 | | | 11.862 | 8.844 | 6.869 | 5.250 | 4.398 | 3.516 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 595.7 | 571.0 | 680.8 | 574.3 | 531.8 | 601.4 | 662.9 | 604.1 |
| 900 | 588.8 | 526.9 | 602.7 | 538.3 | 487.6 | 541.7 | 596.3 | 563.6 |
| 850 | 505.2 | 488.4 | 524.5 | 505.0 | 460.8 | 483.7 | 514.5 | 524.8 |
| 800 | 388.6 | 426.1 | 447.9 | 479.2 | 431.6 | 442.0 | 422.4 | 487.9 |
| 750 | 256.5 | 340.6 | 406.5 | 394.4 | 398.4 | 403.7 | 367.4 | 405.3 |
| 700 | 224.8 | 258.3 | 348.6 | 312.7 | 365.3 | 337.6 | 321.9 | 331.3 |
| 650 | 193.2 | 208.1 | 241.5 | 270.5 | 297.4 | 233.2 | 276.3 | 290.3 |
| 600 | 156.0 | 159.5 | 200.2 | 229.3 | 228.5 | 210.5 | 237.2 | 249.3 |
| 550 | 116.6 | 128.2 | 159.8 | 192.6 | 181.9 | 187.8 | 207.2 | 195.7 |
| 500 | 96.9 | 88.3 | 122.3 | 154.6 | 150.6 | 168.3 | 177.2 | 154.8 |
| 450 | 109.3 | 93.4 | 97.3 | 110.4 | 129.9 | 151.5 | 145.4 | 148.2 |
| 400 | 157.5 | 114.1 | 98.0 | 96.8 | 116.2 | 127.1 | 132.9 | 137.5 |
| 350 | 212.5 | 167.2 | 111.8 | 98.8 | 100.0 | 112.9 | 122.5 | 122.1 |
| 300 | | | 127.4 | 107.6 | 97.4 | 104.7 | 115.9 | 105.1 |
| LONG | -81.25 | -81.02 | -80.58 | -80.15 | -80.11 | -79.97 | -79.67 | -79.34 |
| LAT | -20.51 | -22.46 | -24.42 | -26.37 | -28.32 | -30.27 | -32.21 | -34.15 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 22 | 23 |

PASS 3446 AT AGASTA, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 190934 | 191247 |
| 1000 | 0.111 | 0.083 |
| 950 | 0.117 | 0.087 |
| 900 | 0.126 | 0.092 |
| 850 | 0.137 | 0.098 |
| 800 | 0.150 | 0.104 |
| 750 | 0.168 | 0.113 |
| 700 | 0.194 | 0.123 |
| 650 | 0.225 | 0.139 |
| 600 | 0.278 | 0.161 |
| 550 | 0.361 | 0.202 |
| 500 | 0.492 | 0.259 |
| 450 | 0.704 | 0.350 |
| 400 | 1.006 | 0.469 |
| 350 | 1.514 | 0.722 |
| 300 | 2.343 | 1.167 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 771.7 | 963.5 |
| 900 | 661.3 | 837.3 |
| 850 | 581.2 | 774.8 |
| 800 | 489.4 | 712.2 |
| 750 | 391.3 | 607.8 |
| 700 | 344.2 | 499.3 |
| 650 | 297.2 | 392.1 |
| 600 | 232.7 | 295.4 |
| 550 | 178.3 | 243.1 |
| 500 | 153.9 | 191.6 |
| 450 | 143.0 | 170.5 |
| 400 | 134.5 | 149.3 |
| 350 | 122.8 | 122.7 |
| 300 | 111.1 | 94.7 |
| LONG | -78.63 | -76.00 |
| LAT | -38.03 | -48.43 |
| QUAL | 22 | 22 |

PASS 3446 AT SOLANT, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 190807 | 190842 | 190935 | 191010 | 191045 | 191120 | 191155 | 191230 |
| 1000 | 0.164 | 0.141 | 0.114 | 0.125 | 0.121 | 0.113 | 0.117 | 0.124 |
| 950 | 0.179 | 0.153 | 0.120 | 0.131 | 0.126 | 0.118 | 0.120 | 0.130 |
| 900 | 0.192 | 0.167 | 0.129 | 0.136 | 0.131 | 0.123 | 0.125 | 0.136 |
| 850 | 0.208 | 0.184 | 0.140 | 0.148 | 0.139 | 0.130 | 0.131 | 0.142 |
| 800 | 0.226 | 0.205 | 0.154 | 0.158 | 0.149 | 0.139 | 0.139 | 0.151 |
| 750 | 0.258 | 0.231 | 0.171 | 0.168 | 0.163 | 0.150 | 0.150 | 0.162 |
| 700 | 0.300 | 0.264 | 0.194 | 0.177 | 0.181 | 0.166 | 0.165 | 0.180 |
| 650 | 0.352 | 0.306 | 0.227 | 0.185 | 0.207 | 0.188 | 0.188 | 0.211 |
| 600 | 0.446 | 0.370 | 0.279 | 0.224 | 0.246 | 0.220 | 0.223 | 0.250 |
| 550 | 0.582 | 0.470 | 0.363 | 0.302 | 0.318 | 0.267 | 0.276 | 0.311 |
| 500 | 0.769 | 0.648 | 0.497 | 0.422 | 0.427 | 0.345 | 0.353 | 0.399 |
| 450 | 1.073 | 0.948 | 0.703 | 0.631 | 0.608 | 0.473 | 0.470 | 0.536 |
| 400 | 1.589 | 1.352 | 1.022 | 0.942 | 0.889 | 0.703 | 0.654 | 0.760 |
| 350 | 2.492 | 1.993 | 1.508 | 1.476 | 1.339 | 1.144 | 0.968 | 1.164 |
| 300 | 3.949 | 2.981 | 2.352 | 2.456 | 2.584 | 2.250 | 1.690 | 1.964 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 631.7 | 576.8 | 863.1 | 1419.3 | 1384.3 | 1226.2 | 1546.7 | 1156.8 |
| 900 | 622.9 | 524.1 | 665.6 | 990.2 | 1123.1 | 975.6 | 1225.2 | 1170.4 |
| 850 | 566.5 | 486.3 | 588.4 | 708.4 | 749.7 | 835.0 | 924.7 | 841.1 |
| 800 | 499.0 | 448.5 | 499.8 | 672.8 | 613.0 | 699.4 | 744.0 | 732.6 |
| 750 | 391.2 | 405.9 | 420.3 | 637.2 | 536.9 | 578.6 | 615.6 | 624.1 |
| 700 | 315.6 | 358.4 | 367.2 | 601.6 | 444.1 | 465.1 | 474.3 | 410.7 |
| 650 | 262.2 | 308.5 | 292.7 | 566.0 | 337.1 | 366.2 | 339.1 | 295.2 |
| 600 | 223.0 | 250.1 | 216.8 | 158.1 | 224.7 | 293.8 | 263.8 | 261.0 |
| 550 | 188.0 | 191.8 | 175.8 | 163.8 | 183.4 | 223.6 | 223.1 | 228.2 |
| 500 | 168.0 | 148.0 | 159.5 | 136.4 | 156.5 | 182.8 | 192.1 | 195.9 |
| 450 | 143.0 | 138.9 | 145.7 | 126.2 | 141.0 | 144.5 | 165.3 | 166.4 |
| 400 | 120.2 | 135.1 | 135.1 | 115.4 | 127.8 | 116.7 | 142.3 | 140.7 |
| 350 | 109.7 | 126.1 | 123.0 | 108.7 | 102.7 | 91.0 | 110.3 | 112.5 |
| 300 | 110.1 | 109.9 | 108.8 | 92.7 | 76.6 | 63.4 | 80.0 | 89.9 |
| LONG | -79.33 | -79.11 | -78.62 | -78.23 | -77.80 | -77.34 | -76.84 | -76.28 |
| LAT | -33.21 | -35.15 | -38.09 | -40.02 | -41.95 | -43.54 | -44.88 | -47.21 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 3446 AT SOLANT, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 191305 | 191353 | 191428 | 191503 | 191538 | 191613 | 191649 | 191724 |
| 1000 | 0.083 | 0.069 | 0.065 | 0.060 | 0.053 | 0.047 | 0.047 | 0.037 |
| 950 | 0.088 | 0.074 | 0.070 | 0.065 | 0.057 | 0.051 | 0.052 | 0.042 |
| 900 | 0.093 | 0.080 | 0.075 | 0.071 | 0.076 | 0.057 | 0.058 | 0.049 |
| 850 | 0.099 | 0.088 | 0.082 | 0.080 | 0.088 | 0.065 | 0.065 | 0.057 |
| 800 | 0.106 | 0.096 | 0.091 | 0.090 | 0.094 | 0.074 | 0.074 | 0.066 |
| 750 | 0.115 | 0.106 | 0.103 | 0.103 | 0.106 | 0.087 | 0.086 | 0.077 |
| 700 | 0.127 | 0.118 | 0.116 | 0.120 | 0.123 | 0.103 | 0.102 | 0.090 |
| 650 | 0.142 | 0.133 | 0.134 | 0.142 | 0.145 | 0.123 | 0.122 | 0.107 |
| 600 | 0.165 | 0.152 | 0.157 | 0.172 | 0.174 | 0.151 | 0.149 | 0.131 |
| 550 | 0.203 | 0.182 | 0.194 | 0.212 | 0.212 | 0.189 | 0.184 | 0.168 |
| 500 | 0.261 | 0.231 | 0.249 | 0.270 | 0.274 | 0.245 | 0.236 | 0.227 |
| 450 | 0.348 | 0.305 | 0.331 | 0.359 | 0.369 | 0.336 | 0.317 | 0.319 |
| 400 | 0.503 | 0.424 | 0.470 | 0.503 | 0.580 | 0.480 | 0.439 | 0.461 |
| 350 | 0.771 | 0.633 | 0.702 | 0.759 | 0.888 | 0.738 | 0.633 | 0.702 |
| 300 | 1.342 | 1.018 | 1.186 | 1.264 | 1.337 | 1.256 | 1.021 | 1.113 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 838.2 | 688.6 | 700.4 | 574.3 | 331.6 | 534.5 | 460.2 | 421.1 |
| 900 | 860.7 | 588.0 | 611.2 | 484.0 | 365.8 | 434.9 | 442.3 | 326.4 |
| 850 | 795.6 | 543.0 | 561.9 | 424.3 | 440.0 | 374.9 | 403.3 | 326.5 |
| 800 | 659.3 | 523.2 | 464.5 | 388.8 | 467.7 | 339.8 | 362.3 | 331.9 |
| 750 | 544.7 | 490.4 | 409.7 | 357.3 | 384.7 | 317.7 | 329.1 | 327.3 |
| 700 | 486.0 | 447.0 | 377.0 | 321.0 | 334.7 | 296.9 | 298.0 | 302.0 |
| 650 | 402.6 | 396.3 | 332.5 | 282.9 | 300.9 | 263.5 | 270.6 | 268.6 |
| 600 | 289.3 | 327.8 | 274.4 | 255.0 | 262.9 | 236.1 | 248.0 | 230.0 |
| 550 | 216.9 | 241.7 | 228.3 | 225.9 | 224.1 | 210.4 | 221.9 | 184.1 |
| 500 | 188.8 | 198.0 | 191.0 | 192.7 | 190.2 | 179.0 | 188.3 | 159.4 |
| 450 | 156.1 | 166.7 | 161.9 | 163.4 | 139.1 | 149.2 | 165.1 | 142.9 |
| 400 | 125.8 | 139.8 | 139.7 | 139.5 | 114.1 | 132.4 | 147.6 | 127.2 |
| 350 | 109.5 | 114.3 | 115.3 | 110.1 | 111.5 | 106.0 | 120.1 | 116.1 |
| 300 | 84.5 | 97.5 | 81.5 | 93.6 | 99.3 | 91.6 | 98.0 | 108.0 |
| LONG | -75.09 | -74.77 | -73.98 | -73.16 | -72.18 | -71.11 | -69.85 | -68.42 |
| LAT | -49.03 | -52.24 | -54.14 | -56.04 | -57.92 | -59.79 | -61.71 | -63.54 |
| QUAL | 23 | 23 | 23 | 23 | 22 | 22 | 23 | 23 |

PASS 3446 AT SOLANT, 63 6 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 191759 | 191816 | 191826 | 192001 |
| 1000 | 0.030 | 0.033 | 0.031 | 0.024 |
| 950 | 0.034 | 0.037 | 0.036 | 0.027 |
| 900 | 0.040 | 0.043 | 0.040 | 0.031 |
| 850 | 0.048 | 0.050 | 0.044 | 0.035 |
| 800 | 0.056 | 0.058 | 0.049 | 0.041 |
| 750 | 0.067 | 0.071 | 0.056 | 0.049 |
| 700 | 0.081 | 0.088 | 0.067 | 0.059 |
| 650 | 0.101 | 0.111 | 0.086 | 0.072 |
| 600 | 0.126 | 0.141 | 0.111 | 0.092 |
| 550 | 0.164 | 0.186 | 0.141 | 0.122 |
| 500 | 0.218 | 0.251 | 0.191 | 0.167 |
| 450 | 0.303 | 0.352 | 0.271 | 0.236 |
| 400 | 0.442 | 0.507 | 0.397 | 0.347 |
| 350 | 0.668 | 0.754 | 0.614 | 0.505 |
| 300 | 1.029 | 1.110 | 0.875 | 0.677 |
| HEIGHT | | | | SCALE HEIGHT, KM |
| 950 | 331.0 | 371.8 | 399.5 | 436.6 |
| 900 | 315.1 | 342.7 | 494.3 | 377.5 |
| 850 | 298.0 | 310.2 | 477.0 | 334.1 |
| 800 | 283.9 | 279.6 | 399.6 | 299.0 |
| 750 | 268.0 | 255.9 | 334.1 | 279.8 |
| 700 | 251.8 | 232.4 | 278.7 | 260.6 |
| 650 | 231.0 | 215.9 | 232.4 | 237.0 |
| 600 | 209.2 | 201.2 | 200.3 | 200.0 |
| 550 | 188.8 | 179.4 | 184.6 | 173.0 |
| 500 | 166.6 | 158.1 | 162.6 | 153.9 |
| 450 | 144.0 | 143.9 | 138.4 | 140.2 |
| 400 | 125.0 | 130.6 | 124.8 | 131.0 |
| 350 | 119.2 | 131.7 | 133.9 | 167.2 |
| 300 | 113.2 | 170.9 | 166.7 | 224.2 |
| LONG | -66.88 | -65.93 | -65.36 | -58.78 |
| LAT | -65.37 | -66.24 | -66.75 | -72.00 |
| QUAL | 22 | 22 | 22 | 22 |

PASS 3452 AT QUITOE, 63 6 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 62316 | 62351 | 62444 | 62536 | 62611 | 62629 | 62718 | 62831 |
| 1000 | 0.129 | 0.131 | 0.143 | 0.149 | 0.119 | 0.122 | 0.137 | 0.137 |
| 950 | 0.142 | 0.147 | 0.159 | 0.165 | 0.136 | 0.138 | 0.150 | 0.148 |
| 900 | 0.153 | 0.162 | 0.176 | 0.186 | 0.151 | 0.152 | 0.159 | 0.154 |
| 850 | 0.165 | 0.180 | 0.203 | 0.216 | 0.170 | 0.168 | 0.171 | 0.160 |
| 800 | 0.179 | 0.202 | 0.238 | 0.258 | 0.197 | 0.194 | 0.189 | 0.167 |
| 750 | 0.199 | 0.228 | 0.282 | 0.311 | 0.230 | 0.233 | 0.215 | 0.178 |
| 700 | 0.232 | 0.257 | 0.339 | 0.375 | 0.270 | 0.309 | 0.261 | 0.207 |
| 650 | 0.273 | 0.300 | 0.407 | 0.451 | 0.317 | 0.429 | 0.347 | 0.244 |
| 600 | 0.323 | 0.390 | 0.486 | 0.645 | 0.639 | 0.654 | 0.498 | 0.352 |
| 550 | 0.448 | 0.505 | 0.705 | 1.001 | 0.952 | 1.027 | 0.822 | 0.534 |
| 500 | 0.639 | 0.731 | 1.017 | 1.450 | 1.282 | 1.633 | 1.376 | 0.743 |
| 450 | 0.952 | 1.129 | 1.418 | 2.071 | 2.110 | 2.594 | 2.226 | 1.182 |
| 400 | 1.375 | 1.725 | 2.002 | 3.029 | 3.260 | | 3.612 | 2.151 |
| 350 | 1.893 | 2.371 | | | | | | 3.129 |
| 300 | 2.261 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 617.4 | 471.8 | 441.8 | 431.5 | 437.0 | 501.2 | 693.9 | |
| 900 | 634.8 | 461.3 | 401.5 | 372.6 | 405.3 | 486.8 | 757.8 | 1223.4 |
| 850 | 573.8 | 440.9 | 306.9 | 306.9 | 360.4 | 397.2 | 591.4 | 1268.9 |
| 800 | 501.6 | 407.8 | 332.2 | 275.4 | 326.3 | 322.7 | 454.6 | 934.9 |
| 750 | 434.5 | 374.6 | 298.7 | 256.0 | 292.3 | 245.7 | 343.3 | 643.4 |
| 700 | 374.2 | 341.5 | 271.5 | 236.6 | 258.2 | 166.9 | 218.7 | 309.2 |
| 650 | 313.9 | 302.0 | 244.3 | 217.2 | 224.1 | 138.2 | 159.1 | 225.5 |
| 600 | 253.6 | 240.9 | 217.1 | 177.8 | 101.3 | 115.4 | 118.9 | 165.8 |
| 550 | 189.2 | 179.8 | 176.5 | 124.8 | 116.2 | 108.6 | 103.9 | 129.7 |
| 500 | 137.7 | 136.8 | 143.9 | 132.2 | 126.6 | 109.0 | 102.6 | 122.0 |
| 450 | 134.4 | 120.1 | 147.8 | 138.0 | 108.3 | 120.6 | 103.9 | 102.1 |
| 400 | 151.6 | 140.8 | 154.0 | 154.2 | 139.0 | | 117.2 | 111.7 |
| 350 | 226.6 | 185.7 | | | | | | 170.5 |
| 300 | 326.2 | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -76.52 | -75.99 | -75.62 | -75.35 | -75.16 | -75.06 | -74.79 | -74.37 |
| LAT | -3.51 | -1.53 | 1.47 | 4.41 | 6.39 | 7.41 | 10.18 | 14.31 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 33 |

PASS 3452 AT QUITOE, 63 6 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 62924 | 63016 | 63109 |
| 1000 | 0.115 | 0.130 | 0.116 |
| 950 | 0.122 | 0.140 | 0.124 |
| 900 | 0.127 | 0.146 | 0.130 |
| 850 | 0.133 | 0.151 | 0.136 |
| 800 | 0.140 | 0.158 | 0.144 |
| 750 | 0.148 | 0.171 | 0.162 |
| 700 | 0.161 | 0.190 | 0.187 |
| 650 | 0.184 | 0.215 | 0.220 |
| 600 | 0.252 | 0.261 | 0.297 |
| 550 | 0.340 | 0.350 | 0.412 |
| 500 | 0.510 | 0.527 | 0.647 |
| 450 | 0.831 | 0.822 | 0.978 |
| 400 | 1.371 | 1.292 | 1.432 |
| 350 | 2.038 | 1.954 | 2.182 |
| 300 | | 2.908 | |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 1161.0 | 1095.1 | 986.2 |
| 900 | 1183.7 | 1406.0 | 1071.0 |
| 850 | 1069.8 | 1651.8 | 868.1 |
| 800 | 909.5 | 948.6 | 634.7 |
| 750 | 708.2 | 638.5 | 513.8 |
| 700 | 537.3 | 479.8 | 398.3 |
| 650 | 239.5 | 362.3 | 282.8 |
| 600 | 159.0 | 239.8 | 203.5 |
| 550 | 145.0 | 149.8 | 135.2 |
| 500 | 114.5 | 118.9 | 127.8 |
| 450 | 105.9 | 110.7 | 124.9 |
| 400 | 115.3 | 116.7 | 126.2 |
| 350 | 135.2 | 124.7 | 137.5 |
| 300 | | 126.4 | |
| LONG | -74.05 | -73.72 | -73.37 |
| LAT | 17.31 | 20.24 | 23.24 |
| QUAL | 23 | 23 | 23 |

PASS 3453 AT OTTAWA, 63 6 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 63828 | 63956 | 64031 | 64106 | 64141 | 64209 |
| 1000 | 0.028 | 0.048 | 0.079 | 0.074 | 0.083 | 0.135 |
| 950 | 0.033 | 0.056 | 0.087 | 0.082 | 0.093 | 0.146 |
| 900 | 0.038 | 0.064 | 0.097 | 0.090 | 0.106 | 0.159 |
| 850 | 0.045 | 0.074 | 0.109 | 0.100 | 0.122 | 0.179 |
| 800 | 0.054 | 0.087 | 0.124 | 0.118 | 0.145 | 0.210 |
| 750 | 0.066 | 0.104 | 0.143 | 0.141 | 0.174 | 0.250 |
| 700 | 0.083 | 0.128 | 0.166 | 0.164 | 0.206 | 0.292 |
| 650 | 0.107 | 0.156 | 0.197 | 0.189 | 0.243 | 0.339 |
| 600 | 0.143 | 0.193 | 0.236 | 0.218 | 0.289 | 0.393 |
| 550 | 0.196 | 0.244 | 0.292 | 0.279 | 0.346 | 0.493 |
| 500 | 0.262 | 0.319 | 0.363 | 0.356 | 0.419 | 0.635 |
| 450 | 0.399 | 0.426 | 0.464 | | 0.513 | 0.799 |
| 400 | 0.551 | 0.569 | 0.589 | | 0.624 | 0.982 |
| 350 | | 0.745 | 0.745 | | 0.786 | 1.253 |
| 300 | | | | | 0.991 | 1.587 |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 353.4 | 346.0 | 493.4 | 570.3 | 396.4 | 654.8 |
| 900 | 330.1 | 337.9 | 441.7 | 489.9 | 361.0 | 507.3 |
| 850 | 296.0 | 313.9 | 402.6 | 407.5 | 326.4 | 424.5 |
| 800 | 264.3 | 292.5 | 380.2 | 347.1 | 311.0 | 373.0 |
| 750 | 234.3 | 277.1 | 350.0 | 309.8 | 295.6 | 321.8 |
| 700 | 211.3 | 266.0 | 306.5 | 300.5 | 292.9 | 306.9 |
| 650 | 190.4 | 255.0 | 281.5 | 291.3 | 291.8 | 291.9 |
| 600 | 172.2 | 224.8 | 258.6 | 278.0 | 282.2 | 277.0 |
| 550 | 149.6 | 201.4 | 240.2 | 196.0 | 268.4 | 255.2 |
| 500 | 143.0 | 186.7 | 223.3 | 113.9 | 257.6 | 231.6 |
| 450 | 148.4 | 180.4 | 218.9 | | 249.2 | 222.2 |
| 400 | 161.2 | 180.3 | 216.2 | | 240.8 | 222.0 |
| 350 | | 188.6 | 231.2 | | 227.8 | 218.9 |
| 300 | | | | | 214.6 | 222.2 |
| LONG | -68.06 | -67.01 | -66.19 | -65.32 | -64.30 | -63.42 |
| LAT | 47.85 | 52.71 | 54.63 | 56.54 | 58.44 | 59.95 |
| QUAL | 23 | 23 | 23 | 33 | 33 | 33 |

PASS 3453 AT RESLUT, 63 6 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 64318 | 64335 | 64352 | 64410 | 64445 | 64521 | 64538 |
| 1000 | 0.165 | 0.141 | 0.139 | 0.149 | 0.192 | 0.173 | 0.155 |
| 950 | 0.185 | 0.155 | 0.155 | 0.166 | 0.209 | 0.196 | 0.178 |
| 900 | 0.208 | 0.174 | 0.169 | 0.185 | 0.231 | 0.224 | 0.204 |
| 850 | 0.237 | 0.197 | 0.187 | 0.210 | 0.263 | 0.259 | 0.234 |
| 800 | 0.276 | 0.227 | 0.212 | 0.241 | 0.309 | 0.308 | 0.272 |
| 750 | 0.324 | 0.267 | 0.251 | 0.279 | 0.367 | 0.373 | 0.318 |
| 700 | 0.384 | 0.320 | 0.299 | 0.324 | 0.426 | 0.452 | 0.380 |
| 650 | 0.458 | 0.384 | 0.359 | 0.376 | 0.504 | 0.559 | 0.462 |
| 600 | 0.549 | 0.471 | 0.435 | 0.463 | 0.600 | 0.691 | 0.574 |
| 550 | 0.665 | 0.582 | 0.535 | 0.584 | 0.718 | 0.872 | 0.724 |
| 500 | 0.809 | 0.693 | 0.652 | 0.737 | 0.882 | 1.109 | 0.930 |
| 450 | 1.002 | 0.827 | 0.801 | 0.924 | 1.087 | 1.428 | 1.199 |
| 400 | 1.262 | 1.007 | 0.986 | 1.148 | 1.364 | 1.837 | 1.545 |
| 350 | | 1.252 | 1.181 | 1.385 | 1.684 | | 1.990 |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 435.2 | 467.6 | 597.0 | 480.0 | 524.3 | 377.4 | 366.1 |
| 900 | 395.9 | 416.7 | 501.5 | 428.2 | 435.6 | 351.6 | 354.1 |
| 850 | 362.2 | 389.4 | 421.7 | 383.3 | 378.6 | 322.4 | 339.7 |
| 800 | 333.3 | 331.6 | 358.6 | 346.2 | 350.0 | 288.3 | 323.7 |
| 750 | 310.8 | 286.8 | 335.7 | 328.3 | 323.3 | 259.5 | 304.8 |
| 700 | 295.6 | 276.9 | 312.7 | 310.3 | 303.9 | 243.9 | 271.0 |
| 650 | 282.4 | 267.0 | 289.8 | 292.3 | 292.9 | 237.0 | 246.1 |
| 600 | 270.6 | 264.0 | 272.7 | 265.2 | 282.6 | 230.2 | 229.3 |
| 550 | 257.7 | 264.9 | 263.3 | 234.6 | 271.1 | 216.5 | 214.8 |
| 500 | 240.9 | 281.8 | 254.0 | 223.7 | 250.6 | 205.6 | 203.6 |
| 450 | 232.2 | 265.1 | 253.6 | 228.5 | 235.7 | 200.4 | 199.5 |
| 400 | 228.1 | 249.4 | 261.6 | 250.5 | 236.6 | 205.2 | 199.6 |
| 350 | | 241.9 | 338.0 | 356.3 | 277.8 | | 215.9 |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -60.76 | -59.98 | -59.21 | -58.24 | -56.16 | -53.59 | -52.24 |
| LAT | 63.63 | 64.52 | 65.42 | 66.35 | 68.15 | 69.96 | 70.80 |
| QUAL | 31 | 31 | 31 | 31 | 31 | 33 | 31 |

PASS 3453 AT RESLUT, 63 6 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 64535 | 64613 | 64631 | 64648 | 64705 | 64724 | 64741 | 64758 |
| 1000 | 0.156 | 0.151 | 0.158 | 0.171 | 0.158 | 0.196 | 0.184 | 0.168 |
| 950 | 0.176 | 0.167 | 0.181 | 0.192 | 0.177 | 0.225 | 0.204 | 0.193 |
| 900 | 0.200 | 0.187 | 0.208 | 0.219 | 0.201 | 0.256 | 0.229 | 0.221 |
| 850 | 0.228 | 0.214 | 0.241 | 0.251 | 0.230 | 0.295 | 0.261 | 0.254 |
| 800 | 0.262 | 0.246 | 0.282 | 0.292 | 0.266 | 0.344 | 0.304 | 0.291 |
| 750 | 0.305 | 0.281 | 0.337 | 0.343 | 0.311 | 0.408 | 0.364 | 0.344 |
| 700 | 0.359 | 0.331 | 0.404 | 0.407 | 0.366 | 0.492 | 0.440 | 0.413 |
| 650 | 0.434 | 0.394 | 0.499 | 0.493 | 0.431 | 0.602 | 0.547 | 0.505 |
| 600 | 0.540 | 0.483 | 0.619 | 0.601 | 0.518 | 0.736 | 0.679 | 0.621 |
| 550 | 0.692 | 0.598 | 0.794 | 0.746 | 0.621 | 0.907 | 0.858 | 0.760 |
| 500 | 0.892 | 0.756 | 1.020 | 0.934 | 0.758 | 1.122 | 1.082 | 0.943 |
| 450 | 1.140 | 0.966 | 1.317 | 1.182 | 0.934 | 1.390 | 1.354 | 1.179 |
| 400 | 1.443 | 1.258 | 1.705 | 1.502 | 1.164 | 1.706 | 1.663 | 1.483 |
| 350 | 1.854 | | | 1.892 | 1.450 | | | 1.800 |
| 300 | | | | | 1.783 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 394.0 | 472.8 | 350.9 | 398.5 | 409.1 | 378.8 | 445.0 | 358.8 |
| 900 | 382.3 | 405.2 | 342.6 | 367.4 | 377.6 | 355.1 | 403.3 | 362.7 |
| 850 | 366.8 | 362.9 | 320.5 | 345.0 | 355.1 | 336.7 | 352.2 | 346.2 |
| 800 | 345.1 | 349.1 | 296.9 | 325.8 | 336.9 | 319.9 | 309.0 | 325.8 |
| 750 | 319.2 | 335.2 | 279.7 | 302.6 | 320.0 | 282.2 | 280.9 | 296.3 |
| 700 | 283.5 | 305.3 | 262.5 | 276.9 | 305.2 | 256.8 | 253.5 | 264.4 |
| 650 | 251.2 | 269.6 | 241.3 | 260.3 | 290.5 | 254.3 | 240.8 | 255.1 |
| 600 | 221.1 | 247.6 | 219.5 | 245.5 | 278.0 | 250.6 | 228.1 | 252.1 |
| 550 | 211.5 | 229.4 | 208.2 | 233.4 | 265.4 | 239.9 | 221.5 | 249.2 |
| 500 | 207.4 | 213.7 | 199.7 | 222.9 | 251.7 | 237.1 | 222.9 | 232.6 |
| 450 | 206.6 | 199.1 | 196.5 | 215.4 | 237.5 | 242.3 | 235.0 | 226.2 |
| 400 | 209.7 | 186.1 | 211.7 | 215.7 | 234.8 | 283.2 | 276.4 | 238.8 |
| 350 | 257.4 | | | 262.8 | 238.7 | | | 349.2 |
| 300 | | | | | 271.7 | | | |
| LONG | -50.68 | -49.05 | -47.08 | -45.21 | -43.11 | -40.15 | -37.50 | -34.85 |
| LAT | 71.64 | 72.49 | 73.33 | 74.11 | 74.88 | 75.67 | 76.37 | 77.08 |
| QUAL | 31 | 35 | 31 | 31 | 32 | 33 | 31 | 31 |

PASS 3453 AT RESLUT, 65 6 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 64816 | 64833 | 64850 | 64907 | 64932 | 64958 | 65017 | 65034 |
| 1000 | 0.165 | 0.182 | 0.203 | 0.195 | 0.208 | 0.212 | 0.213 | 0.206 |
| 950 | 0.183 | 0.204 | 0.231 | 0.225 | 0.231 | 0.231 | 0.237 | 0.233 |
| 900 | 0.206 | 0.231 | 0.261 | 0.265 | 0.261 | 0.254 | 0.267 | 0.265 |
| 850 | 0.237 | 0.270 | 0.296 | 0.309 | 0.294 | 0.284 | 0.302 | 0.302 |
| 800 | 0.279 | 0.323 | 0.339 | 0.358 | 0.332 | 0.321 | 0.342 | 0.345 |
| 750 | 0.330 | 0.387 | 0.388 | 0.412 | 0.375 | 0.364 | 0.384 | 0.393 |
| 700 | 0.390 | 0.466 | 0.448 | 0.471 | 0.427 | 0.410 | 0.429 | 0.442 |
| 650 | 0.463 | 0.568 | 0.520 | 0.534 | 0.489 | 0.468 | 0.482 | 0.500 |
| 600 | 0.563 | 0.691 | 0.607 | 0.606 | 0.570 | 0.541 | 0.545 | 0.568 |
| 550 | 0.666 | 0.855 | 0.708 | 0.685 | 0.666 | 0.631 | 0.622 | 0.657 |
| 500 | 0.840 | 1.062 | 0.847 | 0.803 | 0.798 | 0.750 | 0.745 | 0.777 |
| 450 | 1.029 | 1.351 | 1.043 | 0.956 | 0.958 | 0.900 | 0.898 | 0.946 |
| 400 | 1.283 | 1.743 | 1.330 | 1.237 | 1.206 | 1.151 | 1.172 | 1.214 |
| 350 | 1.610 | 2.271 | 1.792 | 1.670 | 1.601 | 1.531 | 1.606 | 1.660 |
| 300 | | | 2.467 | 2.443 | 2.369 | 2.060 | 2.205 | 2.246 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 443.8 | 408.9 | 395.5 | | 427.9 | 553.9 | 432.4 | 393.6 |
| 900 | 385.3 | 346.7 | 391.7 | | 417.0 | 494.5 | 420.2 | 384.1 |
| 850 | 345.8 | 320.0 | 381.6 | | 411.3 | 449.1 | 417.9 | 382.4 |
| 800 | 312.4 | 297.5 | 373.3 | | 406.1 | 423.1 | 425.7 | 394.2 |
| 750 | 299.3 | 275.2 | 363.7 | 366.5 | 395.5 | 401.9 | 431.1 | 402.5 |
| 700 | 290.6 | 258.4 | 341.0 | 380.2 | 371.2 | 385.2 | 425.8 | 404.2 |
| 650 | 279.5 | 254.1 | 326.1 | 392.8 | 347.7 | 363.7 | 400.9 | 383.9 |
| 600 | 262.7 | 249.6 | 317.6 | 372.8 | 325.8 | 338.8 | 368.8 | 363.2 |
| 550 | 250.3 | 234.8 | 308.0 | 352.7 | 303.7 | 313.3 | 334.6 | 329.6 |
| 500 | 245.5 | 220.5 | 264.3 | 303.3 | 276.9 | 285.6 | 288.0 | 286.7 |
| 450 | 239.3 | 207.5 | 226.9 | 249.0 | 249.4 | 247.1 | 241.3 | 232.3 |
| 400 | 228.5 | 195.3 | 193.3 | 191.4 | 205.9 | 189.7 | 190.3 | 185.7 |
| 350 | 212.5 | 191.8 | 160.5 | 149.1 | 155.9 | 174.5 | 157.8 | 155.3 |
| 300 | | | 174.4 | 140.7 | 115.3 | 177.7 | 174.5 | 182.6 |
| LONG | -30.99 | -27.22 | -23.46 | -19.16 | -11.75 | -4.04 | 2.28 | 8.00 |
| LAT | 77.69 | 78.25 | 78.82 | 79.29 | 79.78 | 80.29 | 80.35 | 80.36 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3453 AT RESLUT, 63 6 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 65053 | 65110 | 65128 | 65144 | 65202 | 65219 |
| 1000 | 0.267 | 0.275 | 0.226 | 0.190 | 0.190 | 0.191 |
| 950 | 0.297 | 0.303 | 0.259 | 0.219 | 0.217 | 0.219 |
| 900 | 0.338 | 0.341 | 0.302 | 0.255 | 0.251 | 0.253 |
| 850 | 0.384 | 0.385 | 0.350 | 0.296 | 0.291 | 0.293 |
| 800 | 0.437 | 0.439 | 0.407 | 0.345 | 0.341 | 0.342 |
| 750 | 0.501 | 0.503 | 0.478 | 0.406 | 0.400 | 0.402 |
| 700 | 0.578 | 0.579 | 0.563 | 0.482 | 0.475 | 0.478 |
| 650 | 0.670 | 0.667 | 0.671 | 0.578 | 0.569 | 0.570 |
| 600 | 0.783 | 0.791 | 0.811 | 0.700 | 0.682 | 0.689 |
| 550 | 0.924 | 0.945 | 0.986 | 0.861 | 0.847 | 0.850 |
| 500 | 1.118 | 1.151 | 1.224 | 1.073 | 1.058 | 1.058 |
| 450 | 1.371 | 1.426 | 1.529 | 1.342 | 1.333 | 1.327 |
| 400 | 1.718 | 1.804 | 1.917 | 1.724 | 1.714 | 1.693 |
| 350 | 2.192 | 2.313 | 2.420 | 2.252 | 2.223 | 2.209 |
| 300 | 2.819 | 2.969 | 3.049 | 2.916 | 2.871 | 2.850 |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 424.2 | 460.0 | 338.2 | 338.3 | 351.4 | 346.9 |
| 900 | 395.2 | 418.3 | 330.5 | 329.4 | 339.5 | 336.4 |
| 850 | 383.8 | 394.9 | 328.1 | 325.2 | 328.3 | 328.8 |
| 800 | 371.6 | 376.2 | 315.3 | 317.1 | 315.2 | 315.7 |
| 750 | 358.9 | 358.4 | 305.3 | 299.8 | 295.5 | 301.2 |
| 700 | 345.5 | 342.9 | 295.5 | 284.0 | 282.3 | 286.7 |
| 650 | 331.5 | 327.3 | 283.8 | 269.5 | 272.3 | 272.1 |
| 600 | 310.7 | 297.0 | 270.8 | 254.2 | 261.7 | 256.6 |
| 550 | 282.4 | 268.9 | 234.3 | 238.3 | 237.9 | 240.3 |
| 500 | 260.5 | 247.6 | 231.7 | 226.2 | 220.7 | 227.6 |
| 450 | 240.9 | 226.8 | 226.3 | 214.7 | 211.4 | 218.2 |
| 400 | 211.9 | 209.5 | 219.0 | 194.9 | 195.4 | 194.4 |
| 350 | 204.8 | 203.3 | 216.7 | 192.6 | 196.4 | 195.2 |
| 300 | 202.3 | 203.5 | 217.5 | 213.2 | 211.8 | 213.3 |
| LONG | 14.40 | 19.79 | 25.25 | 30.10 | 35.41 | 39.30 |
| LAT | 80.38 | 80.21 | 79.89 | 79.60 | 79.25 | 78.70 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3473 AT RESLUT, 63 610

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 180034 | 180051 | 180109 | 180126 | 180144 | 180201 | 180218 | 180236 |
| 1000 | 0.143 | 0.147 | 0.122 | 0.126 | 0.136 | 0.146 | 0.155 | 0.182 |
| 950 | 0.159 | 0.167 | 0.143 | 0.148 | 0.155 | 0.169 | 0.180 | 0.204 |
| 900 | 0.180 | 0.192 | 0.166 | 0.169 | 0.177 | 0.198 | 0.210 | 0.232 |
| 850 | 0.207 | 0.221 | 0.194 | 0.195 | 0.207 | 0.236 | 0.246 | 0.265 |
| 800 | 0.242 | 0.258 | 0.228 | 0.226 | 0.248 | 0.286 | 0.291 | 0.306 |
| 750 | 0.287 | 0.309 | 0.272 | 0.269 | 0.302 | 0.346 | 0.347 | 0.355 |
| 700 | 0.341 | 0.372 | 0.332 | 0.325 | 0.370 | 0.424 | 0.414 | 0.430 |
| 650 | 0.412 | 0.467 | 0.411 | 0.394 | 0.466 | 0.516 | 0.510 | 0.537 |
| 600 | 0.515 | 0.606 | 0.523 | 0.498 | 0.593 | 0.636 | 0.654 | 0.671 |
| 550 | 0.648 | 0.787 | 0.665 | 0.629 | 0.760 | 0.830 | 0.840 | 0.844 |
| 500 | 0.828 | 1.022 | 0.873 | 0.810 | 0.991 | 1.076 | 1.086 | 1.068 |
| 450 | 1.072 | 1.343 | 1.160 | 1.045 | 1.305 | 1.414 | 1.415 | 1.377 |
| 400 | 1.412 | 1.753 | 1.556 | 1.350 | 1.724 | 1.869 | 1.844 | 1.865 |
| 350 | 1.879 | 2.228 | 2.033 | 1.763 | 2.270 | 2.449 | 2.399 | 2.518 |
| 300 | 2.418 | | 2.485 | 2.276 | | | 3.041 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 428.5 | 365.7 | 317.9 | 342.1 | 368.1 | 316.9 | 319.7 | 405.4 |
| 900 | 378.9 | 350.5 | 320.4 | 354.1 | 343.6 | 297.1 | 313.4 | 376.0 |
| 850 | 340.0 | 330.7 | 310.7 | 337.8 | 297.9 | 282.3 | 303.9 | 349.6 |
| 800 | 318.0 | 295.3 | 295.7 | 313.6 | 269.2 | 269.8 | 291.2 | 325.0 |
| 750 | 304.3 | 270.4 | 270.0 | 277.5 | 254.6 | 257.5 | 275.1 | 300.5 |
| 700 | 280.6 | 246.4 | 243.7 | 256.9 | 240.0 | 246.9 | 258.9 | 273.6 |
| 650 | 236.8 | 224.9 | 220.6 | 237.3 | 226.4 | 236.4 | 239.6 | 245.6 |
| 600 | 228.9 | 205.6 | 211.2 | 224.7 | 213.2 | 224.2 | 217.0 | 225.2 |
| 550 | 221.0 | 193.4 | 201.6 | 212.1 | 198.9 | 207.5 | 200.3 | 218.3 |
| 500 | 203.5 | 188.2 | 185.3 | 202.0 | 185.7 | 192.0 | 194.2 | 204.6 |
| 450 | 188.3 | 187.9 | 176.5 | 195.9 | 182.5 | 183.3 | 192.0 | 183.5 |
| 400 | 181.1 | 197.3 | 179.8 | 194.5 | 180.0 | 182.0 | 191.9 | 166.5 |
| 350 | 186.1 | 249.1 | 218.8 | 190.8 | 226.1 | 196.8 | 202.1 | 189.5 |
| 300 | 873.5 | | 305.4 | 243.1 | | | 474.6 | |
| LONG | -169.45 | -165.96 | -161.15 | -155.56 | -149.64 | -144.11 | -139.55 | -134.72 |
| LAT | 80.28 | 80.50 | 80.52 | 80.34 | 80.16 | 79.96 | 79.53 | 79.07 |
| QUAL | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 |

PASS 3473 AT RESLUT, 63 610

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 180253 | 180310 | 180328 | 180346 | 180404 | 180421 | 180439 | 180456 |
| 1000 | 0.206 | 0.177 | 0.181 | 0.207 | 0.230 | 0.226 | 0.233 | 0.234 |
| 950 | 0.236 | 0.209 | 0.204 | 0.234 | 0.269 | 0.252 | 0.271 | 0.269 |
| 900 | 0.268 | 0.240 | 0.232 | 0.266 | 0.310 | 0.288 | 0.321 | 0.309 |
| 850 | 0.307 | 0.277 | 0.270 | 0.314 | 0.365 | 0.337 | 0.377 | 0.363 |
| 800 | 0.363 | 0.323 | 0.315 | 0.374 | 0.432 | 0.396 | 0.440 | 0.429 |
| 750 | 0.430 | 0.378 | 0.369 | 0.442 | 0.518 | 0.465 | 0.522 | 0.509 |
| 700 | 0.513 | 0.442 | 0.432 | 0.521 | 0.623 | 0.560 | 0.625 | 0.604 |
| 650 | 0.617 | 0.528 | 0.535 | 0.638 | 0.754 | 0.699 | 0.758 | 0.739 |
| 600 | 0.739 | 0.651 | 0.670 | 0.803 | 0.962 | 0.878 | 0.970 | 0.922 |
| 550 | 0.916 | 0.802 | 0.842 | 1.021 | 1.230 | 1.109 | 1.245 | 1.163 |
| 500 | 1.187 | 1.004 | 1.064 | 1.316 | 1.574 | 1.423 | 1.596 | 1.482 |
| 450 | 1.533 | 1.255 | 1.371 | 1.727 | 2.048 | 1.853 | 2.093 | 1.922 |
| 400 | 1.966 | 1.616 | 1.797 | 2.294 | 2.692 | 2.423 | 2.705 | 2.411 |
| 350 | 2.484 | 2.083 | 2.325 | 3.026 | 3.361 | 3.144 | | 2.929 |
| 300 | 3.031 | 2.709 | 3.022 | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 352.0 | 324.7 | 401.3 | 404.1 | 317.7 | 414.4 | 324.0 | 342.6 |
| 900 | 345.0 | 336.5 | 369.3 | 373.4 | 316.6 | 378.5 | 309.2 | 328.6 |
| 850 | 334.4 | 325.6 | 337.3 | 338.0 | 302.4 | 342.6 | 304.9 | 316.1 |
| 800 | 316.3 | 315.8 | 316.5 | 306.6 | 288.2 | 311.9 | 300.5 | 303.7 |
| 750 | 298.2 | 305.9 | 297.6 | 288.7 | 273.8 | 284.1 | 284.1 | 285.6 |
| 700 | 281.3 | 296.1 | 278.7 | 270.8 | 259.4 | 259.6 | 263.2 | 266.2 |
| 650 | 265.9 | 279.4 | 257.7 | 249.5 | 243.0 | 238.1 | 241.3 | 248.7 |
| 600 | 250.4 | 255.2 | 236.3 | 226.2 | 217.6 | 220.6 | 216.2 | 231.9 |
| 550 | 232.0 | 233.8 | 218.7 | 207.3 | 202.9 | 209.8 | 201.0 | 214.9 |
| 500 | 210.2 | 224.3 | 206.5 | 195.0 | 199.1 | 198.9 | 196.2 | 202.5 |
| 450 | 203.4 | 214.7 | 198.4 | 183.2 | 188.9 | 190.3 | 190.0 | 210.6 |
| 400 | 212.3 | 205.0 | 193.3 | 180.6 | 194.6 | 190.3 | 203.3 | 240.5 |
| 350 | 227.0 | 194.0 | 193.4 | 207.2 | 490.6 | 215.6 | | 325.1 |
| 300 | 410.7 | 197.1 | 200.8 | | | | | |
| LONG | -130.16 | -126.34 | -122.85 | -119.36 | -116.10 | -113.79 | -111.35 | -109.04 |
| LAT | 78.63 | 78.08 | 77.42 | 76.76 | 76.06 | 75.32 | 74.53 | 73.79 |
| QUAL | 21 | 21 | 21 | 21 | 21 | 31 | 31 | 31 |

PASS 3473 AT RESLUT, 63 610

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 180513 | 180531 | 180549 | 180606 | 180623 | 180641 | 180658 | 180715 |
| 1000 | 0.229 | 0.253 | 0.243 | 0.257 | 0.207 | 0.265 | 0.215 | 0.221 |
| 950 | 0.261 | 0.302 | 0.286 | 0.312 | 0.251 | 0.309 | 0.258 | 0.252 |
| 900 | 0.301 | 0.343 | 0.329 | 0.358 | 0.297 | 0.363 | 0.310 | 0.293 |
| 850 | 0.354 | 0.396 | 0.387 | 0.415 | 0.351 | 0.428 | 0.372 | 0.349 |
| 800 | 0.416 | 0.457 | 0.456 | 0.485 | 0.415 | 0.516 | 0.447 | 0.417 |
| 750 | 0.489 | 0.532 | 0.543 | 0.566 | 0.491 | 0.621 | 0.533 | 0.499 |
| 700 | 0.572 | 0.623 | 0.650 | 0.666 | 0.577 | 0.751 | 0.643 | 0.593 |
| 650 | 0.694 | 0.730 | 0.815 | 0.808 | 0.706 | 0.909 | 0.777 | 0.746 |
| 600 | 0.856 | 0.902 | 1.050 | 0.984 | 0.870 | 1.131 | 0.933 | 0.942 |
| 550 | 1.065 | 1.125 | 1.354 | 1.212 | 1.086 | 1.446 | 1.187 | 1.201 |
| 500 | 1.349 | 1.416 | 1.733 | 1.505 | 1.382 | 1.860 | 1.503 | 1.531 |
| 450 | 1.722 | 1.782 | 2.198 | 1.895 | 1.760 | 2.392 | 1.922 | 1.987 |
| 400 | 2.208 | 2.314 | 2.665 | 2.383 | 2.222 | 3.096 | 2.444 | 2.595 |
| 350 | 2.817 | 2.976 | | 2.970 | 2.788 | | 3.109 | 3.362 |
| 300 | | 3.635 | | | | | 3.817 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 348.4 | | | | | 314.0 | 271.6 | 337.3 |
| 900 | 337.1 | 351.0 | 318.1 | 335.0 | 286.8 | 300.8 | 272.7 | 318.5 |
| 850 | 323.1 | 343.2 | 308.9 | 324.5 | 293.7 | 289.0 | 273.2 | 296.2 |
| 800 | 309.9 | 335.4 | 299.8 | 314.0 | 294.1 | 281.0 | 273.3 | 280.1 |
| 750 | 297.3 | 319.6 | 277.7 | 303.5 | 284.5 | 273.1 | 273.4 | 267.2 |
| 700 | 284.7 | 299.2 | 249.3 | 290.8 | 275.0 | 259.2 | 265.2 | 254.3 |
| 650 | 265.4 | 278.7 | 225.9 | 270.5 | 257.9 | 242.5 | 254.3 | 236.9 |
| 600 | 243.8 | 255.2 | 204.7 | 250.9 | 239.9 | 226.1 | 243.3 | 219.1 |
| 550 | 226.3 | 231.4 | 203.5 | 236.7 | 224.2 | 210.0 | 227.6 | 208.6 |
| 500 | 214.3 | 217.7 | 208.1 | 227.8 | 211.0 | 202.3 | 211.9 | 202.2 |
| 450 | 204.8 | 207.1 | 239.0 | 224.7 | 214.4 | 198.4 | 210.6 | 192.8 |
| 400 | 205.2 | 200.5 | 355.4 | 218.3 | 218.8 | 217.0 | 210.3 | 192.3 |
| 350 | 242.4 | 207.6 | | 578.3 | 265.4 | | 218.3 | 208.4 |
| 300 | | 418.4 | | | | | 381.1 | |
| LONG | -107.24 | -105.50 | -103.76 | -102.27 | -101.07 | -99.80 | -98.59 | -97.65 |
| LAT | 72.99 | 72.13 | 71.27 | 70.45 | 69.59 | 68.69 | 67.83 | 66.95 |
| QUAL | 31 | 31 | 31 | 31 | 31 | 21 | 21 | 21 |

PASS 3473 AT RESLUT, 63 610

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 180733 | 180752 | 180808 | 180826 | 180844 | 180901 | 180918 |
| 1000 | 0.207 | 0.222 | 0.199 | 0.165 | 0.193 | 0.191 | 0.163 |
| 950 | 0.237 | 0.269 | 0.234 | 0.199 | 0.227 | 0.226 | 0.197 |
| 900 | 0.281 | 0.313 | 0.272 | 0.235 | 0.268 | 0.260 | 0.233 |
| 850 | 0.336 | 0.377 | 0.316 | 0.280 | 0.321 | 0.304 | 0.276 |
| 800 | 0.402 | 0.461 | 0.369 | 0.338 | 0.384 | 0.358 | 0.327 |
| 750 | 0.486 | 0.564 | 0.446 | 0.406 | 0.467 | 0.425 | 0.391 |
| 700 | 0.588 | 0.691 | 0.542 | 0.492 | 0.564 | 0.503 | 0.465 |
| 650 | 0.719 | 0.852 | 0.677 | 0.591 | 0.707 | 0.627 | 0.582 |
| 600 | 0.924 | 1.079 | 0.849 | 0.753 | 0.928 | 0.795 | 0.739 |
| 550 | 1.184 | 1.376 | 1.100 | 0.966 | 1.243 | 1.025 | 0.973 |
| 500 | 1.518 | 1.764 | 1.432 | 1.281 | 1.684 | 1.346 | 1.301 |
| 450 | 1.975 | 2.304 | 1.888 | 1.713 | 2.291 | 1.828 | 1.751 |
| 400 | 2.572 | 3.023 | 2.486 | 2.259 | 3.075 | 2.522 | 2.351 |
| 350 | 3.328 | | 3.254 | 2.975 | | 3.357 | 3.131 |
| 300 | | | | 3.732 | | | 3.888 |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 348.8 | | | | 296.6 | | |
| 900 | 301.6 | 276.7 | 329.1 | 276.8 | 287.9 | 318.7 | 286.0 |
| 850 | 282.7 | 269.7 | 311.7 | 277.0 | 278.2 | 306.1 | 288.1 |
| 800 | 272.5 | 260.4 | 290.2 | 274.6 | 268.1 | 292.2 | 286.5 |
| 750 | 259.9 | 250.6 | 268.9 | 271.0 | 253.0 | 277.5 | 270.3 |
| 700 | 246.2 | 240.0 | 247.6 | 254.5 | 237.8 | 262.8 | 254.0 |
| 650 | 232.4 | 228.1 | 228.3 | 238.1 | 216.2 | 240.4 | 228.6 |
| 600 | 218.2 | 214.3 | 209.5 | 216.1 | 187.8 | 215.6 | 201.6 |
| 550 | 204.9 | 204.8 | 199.0 | 194.1 | 172.1 | 193.9 | 182.7 |
| 500 | 195.0 | 196.2 | 189.0 | 179.0 | 165.1 | 174.8 | 173.5 |
| 450 | 191.9 | 187.5 | 181.3 | 177.6 | 166.5 | 160.6 | 170.3 |
| 400 | 194.8 | 197.8 | 185.3 | 181.1 | 201.2 | 168.9 | 173.4 |
| 350 | 210.4 | | 206.0 | 194.4 | | 232.1 | 195.2 |
| 300 | | | | 316.5 | | | 340.6 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -96.68 | -95.67 | -94.91 | -94.16 | -93.41 | -92.72 | -92.16 |
| LAT | 66.02 | 65.03 | 64.20 | 63.24 | 62.29 | 61.39 | 60.47 |
| QUAL | 21 | 21 | 21 | 21 | 21 | 21 | 21 |

PASS 3473 AT OTTAWA, 63 610

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 181016 | 181051 | 181126 | 181201 | 181236 | 181311 | 181346 | 181421 |
| 1000 | 0.180 | 0.167 | 0.181 | 0.168 | 0.171 | 0.188 | 0.193 | 0.176 |
| 950 | 0.203 | 0.190 | 0.204 | 0.190 | 0.195 | 0.211 | 0.210 | 0.198 |
| 900 | 0.230 | 0.217 | 0.230 | 0.215 | 0.221 | 0.235 | 0.233 | 0.224 |
| 850 | 0.263 | 0.246 | 0.261 | 0.245 | 0.252 | 0.264 | 0.265 | 0.254 |
| 800 | 0.304 | 0.286 | 0.300 | 0.283 | 0.290 | 0.299 | 0.306 | 0.291 |
| 750 | 0.353 | 0.333 | 0.348 | 0.330 | 0.338 | 0.338 | 0.356 | 0.339 |
| 700 | 0.414 | 0.396 | 0.409 | 0.390 | 0.397 | 0.403 | 0.413 | 0.403 |
| 650 | 0.505 | 0.479 | 0.491 | 0.462 | 0.477 | 0.484 | 0.487 | 0.483 |
| 600 | 0.620 | 0.589 | 0.603 | 0.569 | 0.584 | 0.588 | 0.594 | 0.590 |
| 550 | 0.787 | 0.750 | 0.766 | 0.714 | 0.738 | 0.730 | 0.739 | 0.735 |
| 500 | 1.008 | 0.962 | 0.981 | 0.921 | 0.945 | 0.927 | 0.935 | 0.948 |
| 450 | 1.332 | 1.271 | 1.300 | 1.233 | 1.267 | 1.217 | 1.242 | 1.278 |
| 400 | 1.763 | 1.678 | 1.729 | 1.648 | 1.685 | 1.618 | 1.658 | 1.746 |
| 350 | 2.357 | 2.241 | 2.312 | 2.215 | 2.251 | 2.195 | 2.227 | 2.383 |
| 300 | 3.019 | 2.943 | 3.021 | 2.899 | 2.977 | 2.903 | 3.013 | 3.177 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 408.7 | 387.5 | 413.5 | 405.0 | 396.5 | 442.6 | 505.4 | 417.7 |
| 900 | 382.2 | 375.2 | 394.7 | 381.9 | 380.4 | 427.3 | 426.4 | 394.1 |
| 850 | 351.1 | 352.2 | 371.9 | 358.7 | 362.5 | 403.8 | 395.8 | 369.3 |
| 800 | 330.1 | 330.5 | 353.0 | 336.3 | 344.2 | 380.3 | 365.8 | 344.8 |
| 750 | 311.8 | 308.7 | 329.2 | 315.1 | 320.3 | 356.8 | 337.6 | 319.4 |
| 700 | 291.2 | 283.7 | 292.3 | 295.3 | 291.7 | 306.6 | 311.6 | 292.6 |
| 650 | 260.9 | 256.2 | 256.7 | 274.6 | 263.5 | 264.5 | 283.1 | 266.3 |
| 600 | 231.6 | 231.9 | 228.2 | 239.0 | 235.4 | 244.0 | 250.4 | 241.2 |
| 550 | 212.6 | 213.0 | 212.7 | 209.3 | 211.9 | 222.9 | 222.1 | 214.4 |
| 500 | 195.5 | 196.3 | 197.5 | 186.3 | 190.4 | 201.3 | 197.6 | 185.7 |
| 450 | 183.3 | 185.2 | 184.1 | 179.0 | 179.1 | 186.8 | 181.8 | 171.1 |
| 400 | 177.3 | 175.0 | 171.4 | 166.5 | 173.9 | 169.0 | 170.8 | 158.2 |
| 350 | 187.3 | 180.8 | 179.5 | 177.8 | 175.4 | 171.1 | 167.3 | 167.3 |
| 300 | 250.9 | 208.7 | 220.3 | 214.4 | 211.2 | 194.9 | 191.8 | 201.4 |
| LONG | -90.54 | -89.40 | -88.58 | -87.81 | -87.16 | -86.55 | -85.99 | -85.48 |
| LAT | 57.35 | 55.46 | 53.55 | 51.63 | 49.71 | 47.78 | 45.84 | 43.90 |
| QUAL | 12 | 11 | 11 | 11 | 12 | 23 | 22 | 12 |

PASS 3473 AT OTTAWA, 63 610

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 181456 | 181531 | 181606 | 181829 | 181844 | 181919 |
| 1000 | 0.192 | 0.201 | 0.196 | 0.236 | 0.244 | 0.273 |
| 950 | 0.215 | 0.225 | 0.222 | 0.264 | 0.273 | 0.306 |
| 900 | 0.242 | 0.255 | 0.252 | 0.299 | 0.309 | 0.346 |
| 850 | 0.275 | 0.288 | 0.288 | 0.341 | 0.352 | 0.394 |
| 800 | 0.315 | 0.331 | 0.336 | 0.395 | 0.411 | 0.456 |
| 750 | 0.365 | 0.383 | 0.393 | 0.461 | 0.487 | 0.532 |
| 700 | 0.428 | 0.448 | 0.467 | 0.540 | 0.585 | 0.627 |
| 650 | 0.506 | 0.532 | 0.562 | 0.653 | 0.704 | 0.766 |
| 600 | 0.625 | 0.649 | 0.690 | 0.800 | 0.868 | 0.957 |
| 550 | 0.789 | 0.824 | 0.885 | 1.030 | 1.120 | 1.243 |
| 500 | 1.023 | 1.068 | 1.166 | 1.395 | 1.485 | 1.659 |
| 450 | 1.367 | 1.434 | 1.572 | 1.899 | 2.020 | 2.297 |
| 400 | 1.859 | 1.940 | 2.142 | 2.623 | 2.787 | 3.161 |
| 350 | 2.498 | 2.601 | 2.900 | 3.555 | | 4.322 |
| 300 | | 3.374 | | 4.419 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 425.7 | 439.2 | 390.2 | 416.6 | 408.7 | 416.8 |
| 900 | 400.6 | 401.0 | 370.1 | 388.5 | 383.0 | 393.4 |
| 850 | 376.3 | 379.0 | 347.2 | 362.0 | 357.3 | 363.7 |
| 800 | 352.7 | 356.5 | 327.6 | 337.4 | 319.3 | 330.3 |
| 750 | 328.1 | 333.9 | 308.1 | 312.7 | 282.0 | 306.8 |
| 700 | 301.6 | 306.2 | 284.2 | 287.8 | 268.8 | 281.6 |
| 650 | 273.5 | 271.2 | 257.2 | 259.8 | 255.6 | 249.4 |
| 600 | 237.1 | 239.8 | 229.8 | 229.3 | 226.2 | 209.9 |
| 550 | 206.8 | 213.1 | 201.8 | 181.6 | 187.6 | 184.6 |
| 500 | 184.8 | 186.9 | 180.7 | 166.8 | 173.1 | 165.2 |
| 450 | 176.6 | 170.1 | 165.5 | 159.0 | 159.4 | 154.4 |
| 400 | 164.9 | 166.2 | 163.9 | 159.9 | 156.2 | 156.3 |
| 350 | 171.0 | 177.5 | 183.5 | 189.1 | | 180.2 |
| 300 | | 237.8 | | 307.5 | | |
| LONG | -85.00 | -84.58 | -84.18 | -82.81 | -82.68 | -82.41 |
| LAT | 41.96 | 40.02 | 38.07 | 30.09 | 29.25 | 27.29 |
| QUAL | 23 | 13 | 23 | 33 | 23 | 13 |

PASS 3473 AT QUITOE, 63 610

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 182320 | 182355 | 182430 | 182505 | 182540 | 182615 | 182650 | 182725 |
| 1000 | 0.361 | 0.373 | 0.449 | 0.447 | 0.477 | 0.462 | 0.475 | 0.476 |
| 950 | 0.416 | 0.435 | 0.514 | 0.509 | 0.539 | 0.531 | 0.548 | 0.543 |
| 900 | 0.485 | 0.513 | 0.599 | 0.585 | 0.628 | 0.622 | 0.641 | 0.639 |
| 850 | 0.562 | 0.615 | 0.716 | 0.683 | 0.748 | 0.735 | 0.766 | 0.761 |
| 800 | 0.703 | 0.740 | 0.860 | 0.802 | 0.897 | 0.876 | 0.920 | 0.912 |
| 750 | 0.860 | 0.899 | 1.040 | 0.954 | 1.086 | 1.044 | 1.120 | 1.110 |
| 700 | 1.051 | 1.087 | 1.264 | 1.136 | 1.315 | 1.287 | 1.367 | 1.351 |
| 650 | 1.275 | 1.389 | 1.530 | 1.419 | 1.643 | 1.671 | 1.716 | 1.710 |
| 600 | 1.711 | 1.939 | 2.029 | 1.879 | 2.220 | 2.250 | 2.356 | 2.379 |
| 550 | 2.358 | 2.642 | 2.787 | 2.652 | 3.141 | 3.187 | 3.450 | 3.577 |
| 500 | 3.460 | | 4.093 | 4.014 | 4.790 | | 5.285 | 5.555 |
| 450 | 5.450 | | 6.662 | 6.414 | 7.318 | | 7.964 | 8.031 |
| 400 | 8.521 | | 10.038 | 9.840 | | | | |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 324.2 | 309.2 | 331.8 | 366.6 | 370.4 | 328.0 | 325.2 | 402.2 |
| 900 | 300.0 | 292.9 | 308.0 | 342.5 | 324.7 | 311.2 | 301.2 | 325.6 |
| 850 | 281.5 | 278.9 | 294.3 | 322.6 | 303.4 | 294.3 | 286.6 | 302.3 |
| 800 | 263.1 | 264.5 | 280.6 | 302.6 | 282.1 | 275.2 | 271.9 | 279.1 |
| 750 | 248.1 | 248.8 | 264.0 | 277.7 | 259.5 | 256.1 | 251.5 | 254.0 |
| 700 | 233.8 | 233.0 | 244.6 | 252.7 | 236.6 | 229.1 | 229.2 | 228.0 |
| 650 | 219.4 | 204.3 | 224.3 | 217.2 | 207.2 | 192.2 | 199.1 | 194.5 |
| 600 | 182.9 | 168.6 | 182.0 | 170.9 | 164.8 | 161.7 | 149.6 | 142.3 |
| 550 | 146.8 | 139.4 | 147.9 | 139.2 | 134.7 | 118.1 | 125.5 | 117.7 |
| 500 | 121.1 | | 114.1 | 111.9 | 114.6 | | 114.3 | 118.8 |
| 450 | 106.9 | | 108.6 | 107.4 | 133.5 | | 148.4 | 213.5 |
| 400 | 140.8 | | 187.2 | 163.1 | | | | |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -80.82 | -80.62 | -80.42 | -80.23 | -80.05 | -79.86 | -79.68 | -79.50 |
| LAT | 13.78 | 11.81 | 9.84 | 7.87 | 5.90 | 3.94 | 1.97 | 0.01 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 3473 AT QUITOE, 63 610

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 182800 | 182835 | 182910 | 182945 | 183019 | 183054 | 183129 | 183204 |
| 1000 | 0.477 | 0.442 | 0.424 | 0.410 | 0.383 | 0.360 | 0.351 | 0.346 |
| 950 | 0.539 | 0.499 | 0.477 | 0.467 | 0.440 | 0.412 | 0.400 | 0.386 |
| 900 | 0.622 | 0.570 | 0.558 | 0.560 | 0.530 | 0.494 | 0.483 | 0.447 |
| 850 | 0.730 | 0.664 | 0.666 | 0.687 | 0.654 | 0.603 | 0.597 | 0.524 |
| 800 | 0.868 | 0.784 | 0.806 | 0.845 | 0.807 | 0.738 | 0.731 | 0.617 |
| 750 | 1.044 | 0.929 | 0.976 | 1.034 | 0.991 | 0.902 | 0.891 | 0.728 |
| 700 | 1.254 | 1.260 | 1.286 | 1.292 | 1.260 | 1.172 | 1.141 | 1.011 |
| 650 | 1.752 | 1.756 | 1.779 | 1.713 | 1.615 | 1.506 | 1.466 | 1.374 |
| 600 | 2.506 | 2.448 | 2.369 | 2.232 | 2.043 | 1.892 | 1.851 | 1.749 |
| 550 | 3.746 | 3.427 | 3.171 | 2.893 | 2.624 | 2.428 | 2.345 | 2.277 |
| 500 | 5.474 | | 4.172 | 3.744 | 3.386 | 3.109 | 3.020 | 3.005 |
| 450 | | | 5.114 | 4.624 | 4.232 | 3.915 | 3.836 | 3.928 |
| 400 | | | | 5.151 | 4.900 | 4.721 | 4.676 | 5.016 |
| 350 | | | | | | | | 6.116 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 376.7 | 392.5 | 370.8 | 364.6 | 320.1 | 335.0 | 378.9 | 448.2 |
| 900 | 340.3 | 343.1 | 314.9 | 307.4 | 283.0 | 286.3 | 315.2 | 338.7 |
| 850 | 309.1 | 306.5 | 275.6 | 257.4 | 248.9 | 256.3 | 261.5 | 308.2 |
| 800 | 279.4 | 274.6 | 251.7 | 244.4 | 238.7 | 241.8 | 245.8 | 277.6 |
| 750 | 251.1 | 242.7 | 227.8 | 231.5 | 228.6 | 227.3 | 230.1 | 247.1 |
| 700 | 222.8 | 185.5 | 193.6 | 214.6 | 216.4 | 211.2 | 217.6 | 194.3 |
| 650 | 163.0 | 152.2 | 164.7 | 189.0 | 206.4 | 205.1 | 208.1 | 179.8 |
| 600 | 132.1 | 150.5 | 173.7 | 191.0 | 205.0 | 208.6 | 209.3 | 193.6 |
| 550 | 127.3 | 167.7 | 176.3 | 194.5 | 203.0 | 206.8 | 207.8 | 187.1 |
| 500 | 141.1 | | 210.1 | 217.9 | 214.1 | 211.4 | 206.5 | 186.4 |
| 450 | | | 315.3 | 325.3 | 288.7 | 244.9 | 230.3 | 196.8 |
| 400 | | | | 990.1 | 475.7 | 319.9 | 371.6 | 217.8 |
| 350 | | | | | | | | 354.7 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -79.31 | -79.13 | -78.95 | -78.76 | -78.58 | -78.38 | -78.18 | -77.98 |
| LAT | -1.95 | -3.92 | -5.88 | -7.85 | -9.75 | -11.71 | -13.68 | -15.64 |
| QUAL | 23 | 23 | 23 | 22 | 22 | 22 | 22 | 22 |

PASS 3473 AT QUITOE, 63 610

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 183319 | 183354 | 183429 | 183504 | 183539 | 183614 |
| 1000 | 0.360 | 0.325 | 0.301 | 0.289 | 0.264 | 0.230 |
| 950 | 0.389 | 0.355 | 0.332 | 0.322 | 0.294 | 0.252 |
| 900 | 0.417 | 0.389 | 0.367 | 0.357 | 0.331 | 0.279 |
| 850 | 0.453 | 0.426 | 0.407 | 0.397 | 0.375 | 0.312 |
| 800 | 0.523 | 0.472 | 0.453 | 0.443 | 0.421 | 0.349 |
| 750 | 0.646 | 0.543 | 0.504 | 0.500 | 0.472 | 0.392 |
| 700 | 0.817 | 0.633 | 0.588 | 0.591 | 0.550 | 0.460 |
| 650 | 1.127 | 0.871 | 0.714 | 0.704 | 0.650 | 0.549 |
| 600 | 1.604 | 1.291 | 0.927 | 0.900 | 0.772 | 0.682 |
| 550 | 2.263 | 1.941 | 1.431 | 1.196 | 1.060 | 0.861 |
| 500 | 3.303 | 3.141 | 2.375 | 1.821 | 1.508 | 1.185 |
| 450 | 4.615 | 4.793 | 4.138 | 3.083 | 2.352 | 1.758 |
| 400 | 6.122 | 6.979 | 6.389 | 5.173 | 3.981 | 2.654 |
| 350 | | 9.182 | 8.923 | | 6.765 | 4.204 |
| 300 | | | | | 10.724 | 6.913 |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 703.4 | 552.2 | 507.8 | 482.3 | 453.5 | 526.4 |
| 900 | 654.6 | 540.3 | 480.9 | 470.5 | 433.2 | 465.0 |
| 850 | 489.9 | 480.9 | 449.6 | 440.1 | 412.4 | 437.2 |
| 800 | 323.8 | 416.3 | 417.8 | 404.1 | 390.8 | 409.5 |
| 750 | 227.9 | 343.1 | 385.9 | 364.4 | 369.2 | 381.7 |
| 700 | 187.3 | 269.9 | 326.3 | 311.5 | 327.2 | 326.5 |
| 650 | 150.0 | 182.3 | 251.3 | 258.7 | 283.4 | 263.3 |
| 600 | 139.3 | 125.9 | 176.5 | 205.8 | 239.1 | 225.3 |
| 550 | 140.1 | 114.5 | 110.4 | 153.5 | 178.2 | 193.8 |
| 500 | 141.0 | 113.2 | 93.4 | 110.3 | 131.5 | 157.8 |
| 450 | 164.0 | 123.2 | 102.0 | 93.6 | 104.9 | 126.9 |
| 400 | 193.6 | 158.7 | 138.6 | 103.0 | 94.4 | 115.7 |
| 350 | | 200.9 | 159.4 | | 98.6 | 105.8 |
| 300 | | | | | 119.2 | 95.8 |
| LONG | -77.52 | -77.29 | -77.05 | -76.80 | -76.53 | -76.25 |
| LAT | -19.83 | -21.79 | -23.75 | -25.70 | -27.65 | -29.60 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 3473 AT AGASTA, 63 610

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 183336 | 183411 | 183446 | 183521 | 183556 | 183706 | 183741 |
| 1000 | 0.353 | 0.326 | 0.316 | 0.284 | 0.219 | 0.185 | 0.163 |
| 950 | 0.385 | 0.359 | 0.349 | 0.312 | 0.238 | 0.202 | 0.177 |
| 900 | 0.417 | 0.398 | 0.385 | 0.348 | 0.267 | 0.224 | 0.199 |
| 850 | 0.453 | 0.441 | 0.425 | 0.391 | 0.307 | 0.249 | 0.226 |
| 800 | 0.502 | 0.488 | 0.474 | 0.440 | 0.356 | 0.277 | 0.259 |
| 750 | 0.636 | 0.555 | 0.531 | 0.496 | 0.414 | 0.308 | 0.298 |
| 700 | 0.939 | 0.659 | 0.596 | 0.567 | 0.483 | 0.360 | 0.341 |
| 650 | 1.179 | 0.865 | 0.731 | 0.689 | 0.575 | 0.430 | 0.391 |
| 600 | 1.553 | 1.269 | 0.920 | 0.843 | 0.804 | 0.516 | 0.449 |
| 550 | 2.437 | 1.673 | 1.310 | 1.114 | 1.109 | 0.675 | 0.589 |
| 500 | 3.607 | 3.122 | 2.109 | 1.612 | 1.554 | 0.915 | 0.778 |
| 450 | 5.220 | 4.903 | 3.647 | 2.720 | 2.132 | 1.271 | 1.103 |
| 400 | | 6.966 | 5.953 | 4.796 | 3.492 | 1.766 | 1.535 |
| 350 | | 9.252 | 8.609 | 7.769 | 5.790 | 2.506 | 2.124 |
| 300 | | | | | 9.625 | 3.646 | 3.007 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 614.6 | 503.0 | 494.0 | 475.3 | 480.2 | 506.0 | 487.9 |
| 900 | 584.5 | 501.8 | 479.8 | 449.7 | 434.6 | 490.7 | 457.2 |
| 850 | 500.8 | 492.8 | 458.1 | 423.2 | 389.1 | 473.4 | 426.4 |
| 800 | 381.0 | 447.8 | 422.1 | 393.5 | 346.4 | 425.9 | 395.7 |
| 750 | 250.4 | 329.4 | 386.2 | 363.7 | 312.2 | 378.3 | 368.8 |
| 700 | 164.7 | 257.5 | 350.3 | 329.8 | 278.0 | 334.5 | 342.6 |
| 650 | 168.8 | 190.0 | 275.0 | 279.8 | 242.5 | 291.5 | 316.3 |
| 600 | 150.3 | 131.4 | 189.8 | 229.8 | 198.5 | 248.4 | 288.2 |
| 550 | 122.0 | 116.1 | 134.3 | 173.9 | 155.2 | 206.0 | 222.9 |
| 500 | 128.4 | 101.3 | 96.0 | 120.7 | 145.9 | 163.9 | 166.7 |
| 450 | 160.6 | 127.8 | 95.6 | 92.1 | 135.2 | 156.5 | 156.0 |
| 400 | | 158.7 | 116.1 | 93.7 | 100.8 | 149.1 | 153.7 |
| 350 | | 216.4 | 148.4 | 115.5 | 99.5 | 138.9 | 149.6 |
| 300 | | | | | 95.0 | 129.9 | 146.3 |
| LONG | -77.41 | -77.17 | -76.93 | -76.67 | -76.40 | -75.81 | -75.49 |
| LAT | -20.79 | -22.74 | -24.70 | -26.65 | -28.60 | -32.48 | -34.43 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 22 |

PASS 3473 AT AGASTA, 63 610

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 183816 | 183926 | 184001 | 184054 |
| 1000 | 0.160 | 0.109 | 0.117 | 0.111 |
| 950 | 0.195 | 0.117 | 0.124 | 0.118 |
| 900 | 0.206 | 0.127 | 0.133 | 0.127 |
| 850 | 0.221 | 0.139 | 0.144 | 0.136 |
| 800 | 0.240 | 0.153 | 0.158 | 0.148 |
| 750 | 0.270 | 0.169 | 0.174 | 0.163 |
| 700 | 0.332 | 0.188 | 0.192 | 0.179 |
| 650 | 0.411 | 0.218 | 0.231 | 0.217 |
| 600 | 0.505 | 0.275 | 0.291 | 0.276 |
| 550 | 0.615 | 0.346 | 0.369 | 0.349 |
| 500 | 0.742 | 0.462 | 0.474 | 0.440 |
| 450 | 1.054 | 0.620 | 0.603 | 0.547 |
| 400 | 1.448 | 0.944 | 0.872 | 0.757 |
| 350 | 2.010 | 1.427 | 1.315 | 1.125 |
| 300 | 3.017 | 2.236 | 2.128 | 1.854 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 739.3 | 610.9 | 742.3 | 691.6 |
| 900 | 715.3 | 569.8 | 654.2 | 656.7 |
| 850 | 617.4 | 527.8 | 574.7 | 608.7 |
| 800 | 519.6 | 483.4 | 516.4 | 542.8 |
| 750 | 421.1 | 439.1 | 458.1 | 476.8 |
| 700 | 321.2 | 394.8 | 399.7 | 410.9 |
| 650 | 241.0 | 342.6 | 335.5 | 337.8 |
| 600 | 231.1 | 276.2 | 268.3 | 261.8 |
| 550 | 221.3 | 209.8 | 209.9 | 211.9 |
| 500 | 211.4 | 175.4 | 192.6 | 201.0 |
| 450 | 172.2 | 147.8 | 175.4 | 190.0 |
| 400 | 155.3 | 130.3 | 144.5 | 159.2 |
| 350 | 139.3 | 117.9 | 115.4 | 119.0 |
| 300 | 117.7 | 107.9 | 93.4 | 87.9 |
| LONG | -75.14 | -74.37 | -73.96 | -73.23 |
| LAT | -36.37 | -40.23 | -42.16 | -45.08 |
| QUAL | 23 | 23 | 23 | 23 |

PASS 3493 AT AGASTA, 63 612

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 62220 | 62255 | 62312 | 62347 | 62422 | 62439 | 62514 | 62532 |
| 1000 | 0.119 | 0.103 | 0.080 | 0.106 | 0.116 | 0.100 | 0.109 | 0.107 |
| 950 | 0.122 | 0.106 | 0.085 | 0.110 | 0.123 | 0.108 | 0.116 | 0.115 |
| 900 | 0.125 | 0.109 | 0.088 | 0.117 | 0.130 | 0.116 | 0.124 | 0.124 |
| 850 | 0.130 | 0.112 | 0.093 | 0.124 | 0.138 | 0.126 | 0.135 | 0.137 |
| 800 | 0.137 | 0.115 | 0.102 | 0.133 | 0.148 | 0.137 | 0.148 | 0.152 |
| 750 | 0.147 | 0.133 | 0.114 | 0.145 | 0.161 | 0.152 | 0.164 | 0.170 |
| 700 | 0.168 | 0.146 | 0.127 | 0.162 | 0.187 | 0.174 | 0.187 | 0.191 |
| 650 | 0.196 | 0.164 | 0.143 | 0.189 | 0.222 | 0.204 | 0.223 | 0.215 |
| 600 | 0.233 | 0.198 | 0.173 | 0.235 | 0.270 | 0.251 | 0.279 | 0.269 |
| 550 | 0.343 | 0.260 | 0.236 | 0.341 | 0.386 | 0.337 | 0.382 | 0.370 |
| 500 | 0.489 | 0.422 | 0.369 | 0.543 | 0.606 | 0.560 | 0.613 | 0.560 |
| 450 | 0.746 | 0.664 | 0.595 | 0.856 | 0.965 | 0.961 | 0.952 | 0.908 |
| 400 | 1.108 | 1.065 | 1.000 | 1.375 | 1.534 | 1.602 | 1.589 | 1.487 |
| 350 | 1.286 | | | | | 2.385 | 2.446 | 2.297 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 1808.0 | 1614.7 | 1196.7 | 1143.1 | 901.9 | 653.5 | 761.1 | 668.6 |
| 900 | 1958.5 | 1562.8 | 1035.0 | 853.1 | 837.5 | 648.9 | 638.3 | 565.7 |
| 850 | 1176.8 | 1371.9 | 758.5 | 762.1 | 731.6 | 590.9 | 554.2 | 481.8 |
| 800 | 836.5 | 1181.1 | 623.7 | 662.1 | 625.2 | 530.2 | 499.8 | 450.4 |
| 750 | 598.3 | 485.9 | 490.4 | 530.8 | 518.3 | 438.3 | 445.4 | 418.9 |
| 700 | 421.0 | 475.8 | 432.1 | 386.0 | 387.8 | 335.6 | 368.9 | 387.5 |
| 650 | 302.0 | 374.6 | 351.1 | 270.2 | 273.1 | 281.2 | 272.3 | 350.8 |
| 600 | 218.4 | 239.6 | 221.4 | 194.5 | 208.6 | 219.1 | 202.0 | 212.7 |
| 550 | 129.7 | 148.0 | 138.8 | 141.1 | 140.2 | 139.7 | 145.2 | 143.5 |
| 500 | 128.9 | 105.2 | 109.3 | 111.0 | 110.6 | 99.0 | 109.1 | 115.9 |
| 450 | 119.7 | 109.8 | 102.8 | 110.3 | 111.4 | 97.9 | 107.6 | 105.8 |
| 400 | 223.4 | 140.0 | 132.7 | 144.0 | 133.3 | 109.9 | 105.6 | 109.6 |
| 350 | 1232.0 | | | | | 193.0 | 141.7 | 121.9 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -86.45 | -86.17 | -86.04 | -85.79 | -85.54 | -85.43 | -85.20 | -85.09 |
| LAT | -28.81 | -26.83 | -25.88 | -23.93 | -21.96 | -21.00 | -19.03 | -18.01 |
| QUAL | 22 | 22 | 22 | 22 | 23 | 12 | 22 | 23 |

PASS 3493 AT AGASTA, 63 612

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 62607 | 62624 | 62659 | 62734 | 62752 | 62827 | 62844 | 62919 |
| 1000 | 0.109 | 0.091 | 0.086 | 0.112 | 0.113 | 0.121 | 0.115 | 0.118 |
| 950 | 0.118 | 0.102 | 0.096 | 0.122 | 0.123 | 0.130 | 0.126 | 0.128 |
| 900 | 0.129 | 0.116 | 0.107 | 0.136 | 0.136 | 0.144 | 0.138 | 0.141 |
| 850 | 0.143 | 0.130 | 0.121 | 0.153 | 0.154 | 0.162 | 0.156 | 0.159 |
| 800 | 0.160 | 0.147 | 0.138 | 0.175 | 0.175 | 0.184 | 0.180 | 0.180 |
| 750 | 0.179 | 0.167 | 0.160 | 0.202 | 0.198 | 0.207 | 0.207 | 0.206 |
| 700 | 0.207 | 0.192 | 0.185 | 0.233 | 0.229 | 0.238 | 0.237 | 0.236 |
| 650 | 0.243 | 0.226 | 0.213 | 0.270 | 0.271 | 0.283 | 0.281 | 0.270 |
| 600 | 0.296 | 0.271 | 0.246 | 0.311 | 0.322 | 0.339 | 0.342 | 0.345 |
| 550 | 0.381 | 0.336 | 0.310 | 0.383 | 0.397 | 0.428 | 0.449 | 0.459 |
| 500 | 0.537 | 0.465 | 0.402 | 0.502 | 0.506 | 0.574 | 0.614 | 0.640 |
| 450 | 0.828 | 0.702 | 0.563 | 0.697 | 0.661 | 0.822 | 0.859 | 0.902 |
| 400 | 1.310 | 1.107 | 0.873 | 1.015 | 0.999 | 1.149 | 1.219 | 1.366 |
| 350 | 2.020 | 1.762 | 1.396 | 1.483 | 1.441 | 1.465 | 1.581 | 1.856 |
| 300 | 3.134 | | | | | 1.661 | 1.886 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 622.7 | 426.3 | 444.0 | 533.2 | 527.9 | 597.6 | 533.5 | 560.8 |
| 900 | 527.6 | 410.0 | 424.5 | 438.4 | 486.8 | 528.5 | 469.2 | 477.9 |
| 850 | 464.0 | 407.1 | 394.5 | 409.8 | 445.7 | 459.4 | 431.7 | 400.6 |
| 800 | 432.4 | 388.2 | 364.4 | 381.2 | 402.2 | 409.2 | 394.2 | 373.5 |
| 750 | 400.8 | 367.3 | 346.2 | 356.8 | 355.5 | 369.7 | 357.8 | 348.7 |
| 700 | 341.0 | 339.1 | 329.2 | 339.7 | 325.9 | 331.6 | 322.0 | 323.8 |
| 650 | 279.8 | 298.7 | 312.3 | 322.5 | 300.1 | 294.8 | 276.2 | 299.0 |
| 600 | 232.5 | 254.4 | 295.3 | 305.3 | 274.3 | 257.9 | 227.4 | 244.9 |
| 550 | 185.6 | 202.3 | 234.4 | 223.8 | 242.1 | 214.8 | 195.2 | 176.8 |
| 500 | 139.5 | 154.7 | 172.3 | 172.7 | 203.9 | 164.4 | 170.4 | 150.9 |
| 450 | 110.9 | 119.0 | 131.7 | 147.5 | 166.7 | 155.0 | 157.9 | 138.1 |
| 400 | 114.2 | 111.9 | 116.4 | 139.3 | 134.2 | 188.1 | 172.6 | 141.7 |
| 350 | 114.8 | 109.2 | 106.8 | 138.2 | 157.3 | 301.6 | 235.3 | 199.7 |
| 300 | 136.8 | | | | | 652.1 | 345.9 | |
| LONG | -84.87 | -84.77 | -84.57 | -84.37 | -84.27 | -84.07 | -83.98 | -83.79 |
| LAT | -16.03 | -15.07 | -13.10 | -11.12 | -10.10 | -8.12 | -7.16 | -5.18 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 22 | 22 |

PASS 3493 AT AGASTA, 63 612

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 62954 |
| 1000 | 0.126 |
| 950 | 0.138 |
| 900 | 0.151 |
| 850 | 0.167 |
| 800 | 0.188 |
| 750 | 0.221 |
| 700 | 0.286 |
| 650 | 0.371 |
| 600 | 0.475 |
| 550 | 0.598 |
| 500 | 0.829 |
| 450 | 1.208 |
| 400 | |
| 350 | |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 560.8 |
| 900 | 505.1 |
| 850 | 435.1 |
| 800 | 359.0 |
| 750 | 294.2 |
| 700 | 246.9 |
| 650 | 203.5 |
| 600 | 192.9 |
| 550 | 182.3 |
| 500 | 164.2 |
| 450 | 149.2 |
| 400 | |
| 350 | |
| 300 | |

| | |
|---|---|
| LONG | -83.60 |
| LAT | -3.19 |
| QUAL | 23 |

PASS 3494 AT QUITOE, 63 612

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 63217 | 63252 | 63310 |
| 1000 | 0.141 | 0.122 | 0.144 |
| 950 | 0.158 | 0.134 | 0.152 |
| 900 | 0.183 | 0.156 | 0.161 |
| 850 | 0.218 | 0.196 | 0.186 |
| 800 | 0.263 | 0.253 | 0.231 |
| 750 | 0.324 | 0.325 | 0.290 |
| 700 | 0.399 | 0.414 | 0.362 |
| 650 | 0.496 | 0.520 | 0.473 |
| 600 | 0.744 | 0.704 | 0.697 |
| 550 | 1.091 | 1.021 | 1.000 |
| 500 | 1.598 | 1.473 | 1.417 |
| 450 | 2.566 | 2.132 | 2.222 |
| 400 | 3.751 | 3.179 | 3.464 |
| 350 | | | 4.828 |
| 300 | | | |

| HEIGHT | SCALE HEIGHT, KM | | |
|---|---|---|---|
| 950 | 382.9 | 407.0 | 909.2 |
| 900 | 320.9 | 325.2 | 603.8 |
| 850 | 290.1 | 287.7 | 404.5 |
| 800 | 260.1 | 250.2 | 248.9 |
| 750 | 237.7 | 218.1 | 220.0 |
| 700 | 215.3 | 203.5 | 200.3 |
| 650 | 191.5 | 188.8 | 176.7 |
| 600 | 152.7 | 171.0 | 143.9 |
| 550 | 129.1 | 150.0 | 135.3 |
| 500 | 120.4 | 137.2 | 129.7 |
| 450 | 117.1 | 131.8 | 112.9 |
| 400 | 201.7 | 141.9 | 130.0 |
| 350 | | | 215.1 |
| 300 | | | |

| | | | |
|---|---|---|---|
| LONG | -82.65 | -82.66 | -82.56 |
| LAT | 4.89 | 6.87 | 7.89 |
| QUAL | 22 | 23 | 33 |

PASS 3494 AT OTTAWA, 63 612

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 64246 | 64413 | 64540 | 64615 | 64650 | 64725 | 64800 | 64835 |
| 1000 | 0.025 | | | 0.040 | 0.062 | 0.075 | 0.114 | 0.110 |
| 950 | 0.029 | | | 0.050 | 0.071 | 0.090 | 0.130 | 0.129 |
| 900 | 0.032 | 0.015 | 0.017 | 0.059 | 0.084 | 0.109 | 0.149 | 0.153 |
| 850 | 0.035 | 0.019 | 0.024 | 0.072 | 0.101 | 0.128 | 0.172 | 0.179 |
| 800 | 0.040 | 0.023 | 0.031 | 0.088 | 0.122 | 0.150 | 0.202 | 0.211 |
| 750 | 0.047 | 0.029 | 0.042 | 0.107 | 0.146 | 0.175 | 0.238 | 0.252 |
| 700 | 0.057 | 0.037 | 0.057 | 0.131 | 0.176 | 0.208 | 0.286 | 0.303 |
| 650 | 0.070 | 0.048 | 0.075 | 0.165 | 0.210 | 0.248 | 0.345 | 0.365 |
| 600 | 0.096 | 0.062 | 0.110 | 0.208 | 0.265 | 0.295 | 0.417 | 0.452 |
| 550 | 0.136 | 0.086 | 0.153 | 0.271 | 0.340 | 0.363 | 0.527 | 0.569 |
| 500 | 0.201 | 0.122 | 0.227 | 0.349 | 0.444 | 0.458 | 0.662 | 0.726 |
| 450 | 0.326 | 0.179 | 0.336 | 0.476 | 0.603 | 0.589 | 0.849 | 0.937 |
| 400 | 0.570 | 0.268 | 0.509 | | 0.818 | 0.755 | 1.104 | 1.247 |
| 350 | 0.985 | 0.425 | 0.766 | | 1.104 | 0.958 | | 1.672 |
| 300 | | 0.657 | 1.094 | | | 1.175 | | 2.231 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | | | 289.6 | 307.4 | | 373.2 | 302.4 |
| 900 | 465.2 | 275.8 | | 264.9 | 288.2 | | 347.8 | 303.7 |
| 850 | 426.3 | 216.6 | 154.0 | 257.7 | 278.7 | 303.3 | 330.9 | 298.9 |
| 800 | 364.7 | 217.7 | 165.5 | 251.1 | 274.6 | 301.8 | 305.7 | 287.1 |
| 750 | 291.4 | 210.9 | 165.3 | 245.1 | 267.4 | 299.5 | 283.2 | 276.5 |
| 700 | 249.6 | 202.0 | 162.7 | 236.5 | 255.9 | 291.8 | 271.6 | 266.3 |
| 650 | 206.4 | 189.8 | 159.7 | 219.2 | 244.3 | 284.0 | 260.1 | 256.1 |
| 600 | 159.0 | 177.6 | 150.7 | 203.3 | 224.4 | 271.3 | 248.0 | 239.5 |
| 550 | 139.1 | 161.5 | 141.7 | 192.9 | 203.0 | 231.2 | 232.6 | 219.0 |
| 500 | 119.5 | 144.0 | 134.7 | 182.6 | 185.0 | 215.8 | 217.1 | 201.5 |
| 450 | 97.1 | 131.1 | 128.7 | 155.7 | 172.7 | 212.4 | 199.5 | 186.7 |
| 400 | 88.9 | 121.3 | 121.4 | | 167.9 | 216.2 | 181.9 | 178.9 |
| 350 | 103.1 | 109.3 | 130.5 | | 167.4 | 231.1 | | 169.5 |
| 300 | | 118.7 | 158.7 | | | 264.5 | | 212.9 |
| LONG | -78.13 | -76.96 | -75.50 | -74.82 | -74.06 | -73.20 | -72.28 | -71.16 |
| LAT | 40.37 | 45.21 | 50.04 | 51.97 | 53.89 | 55.80 | 57.71 | 59.59 |
| QUAL | 23 | 23 | 33 | 33 | 33 | 33 | 33 | 32 |

PASS 3494 AT OTTAWA, 63 612

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 64928 | 64945 |
| 1000 | 0.118 | 0.145 |
| 950 | 0.136 | 0.164 |
| 900 | 0.154 | 0.187 |
| 850 | 0.174 | 0.215 |
| 800 | 0.197 | 0.249 |
| 750 | 0.229 | 0.292 |
| 700 | 0.297 | 0.346 |
| 650 | 0.370 | 0.410 |
| 600 | 0.461 | 0.497 |
| 550 | 0.569 | 0.617 |
| 500 | 0.703 | 0.783 |
| 450 | 0.925 | 1.016 |
| 400 | 1.226 | 1.347 |
| 350 | 1.602 | 1.828 |
| 300 | 2.056 | 2.478 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 390.2 | 374.3 |
| 900 | 394.8 | 362.4 |
| 850 | 357.7 | 346.2 |
| 800 | 320.7 | 324.4 |
| 750 | 293.8 | 307.9 |
| 700 | 268.1 | 296.1 |
| 650 | 242.4 | 283.1 |
| 600 | 233.0 | 249.1 |
| 550 | 226.0 | 223.9 |
| 500 | 215.2 | 204.1 |
| 450 | 185.3 | 185.5 |
| 400 | 186.5 | 174.7 |
| 350 | 194.5 | 162.4 |
| 300 | 198.7 | 189.9 |
| LONG | -69.24 | -68.56 |
| LAT | 62.43 | 63.33 |
| QUAL | 33 | 33 |

PASS 3494 AT RESLUT, 63 612

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 65022 | 65038 | 65057 | 65136 | 65153 | 65211 | 65228 | 65246 |
| 1000 | 0.181 | 0.178 | 0.161 | 0.185 | 0.157 | 0.171 | 0.182 | 0.184 |
| 950 | 0.222 | 0.208 | 0.191 | 0.216 | 0.186 | 0.206 | 0.221 | 0.225 |
| 900 | 0.262 | 0.243 | 0.219 | 0.246 | 0.210 | 0.241 | 0.256 | 0.255 |
| 850 | 0.314 | 0.290 | 0.247 | 0.284 | 0.241 | 0.280 | 0.302 | 0.297 |
| 800 | 0.376 | 0.348 | 0.282 | 0.330 | 0.279 | 0.331 | 0.359 | 0.349 |
| 750 | 0.451 | 0.419 | 0.326 | 0.387 | 0.325 | 0.397 | 0.428 | 0.413 |
| 700 | 0.541 | 0.507 | 0.378 | 0.456 | 0.379 | 0.476 | 0.514 | 0.492 |
| 650 | 0.677 | 0.609 | 0.469 | 0.536 | 0.455 | 0.591 | 0.615 | 0.583 |
| 600 | 0.849 | 0.740 | 0.595 | 0.661 | 0.568 | 0.770 | 0.774 | 0.733 |
| 550 | 1.077 | 0.952 | 0.757 | 0.830 | 0.719 | 1.010 | 0.981 | 0.936 |
| 500 | 1.374 | 1.222 | 0.955 | 1.061 | 0.925 | 1.335 | 1.236 | 1.214 |
| 450 | 1.760 | 1.583 | 1.219 | 1.371 | 1.233 | 1.778 | 1.587 | 1.571 |
| 400 | 2.248 | 2.062 | 1.569 | 1.823 | 1.665 | 2.365 | 2.061 | 2.054 |
| 350 | | 2.626 | 2.018 | 2.409 | 2.260 | | 2.621 | |
| 300 | | | 2.527 | | 3.042 | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 900 | 279.3 | 296.8 | 377.5 | 348.0 | 361.4 | 307.1 | 304.4 | 342.2 |
| 850 | 278.6 | 289.2 | 375.1 | 338.0 | 346.6 | 298.7 | 298.9 | 328.8 |
| 800 | 273.6 | 281.7 | 350.2 | 328.0 | 330.2 | 285.5 | 291.4 | 315.3 |
| 750 | 262.6 | 273.1 | 321.8 | 312.5 | 312.8 | 269.7 | 281.6 | 298.3 |
| 700 | 251.0 | 262.6 | 293.4 | 293.7 | 295.5 | 254.0 | 266.6 | 277.6 |
| 650 | 235.1 | 252.1 | 257.6 | 274.8 | 268.9 | 228.2 | 251.5 | 256.9 |
| 600 | 220.1 | 238.9 | 219.8 | 249.4 | 232.9 | 189.9 | 228.5 | 231.9 |
| 550 | 211.5 | 217.0 | 212.2 | 222.0 | 207.1 | 183.1 | 213.2 | 205.7 |
| 500 | 205.8 | 199.3 | 211.9 | 202.9 | 190.2 | 178.4 | 209.8 | 199.0 |
| 450 | 205.1 | 192.8 | 205.8 | 188.2 | 175.0 | 176.9 | 198.1 | 192.8 |
| 400 | 212.8 | 199.5 | 199.9 | 178.0 | 166.3 | 179.2 | 200.3 | 244.2 |
| 350 | | 210.7 | 205.5 | 178.7 | 167.1 | | 218.9 | |
| 300 | | | 365.7 | | 170.3 | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -66.83 | -66.00 | -65.02 | -62.44 | -61.29 | -59.77 | -58.16 | -56.44 |
| LAT | 65.28 | 66.11 | 67.10 | 69.08 | 69.94 | 70.82 | 71.64 | 72.51 |
| QUAL | | | | | | | | |

PASS 3494 AT RESLUT, 63 612

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 65304 | 65321 | 65338 | 65355 | 65412 | 65430 | 65447 | 65506 |
| 1000 | 0.184 | 0.165 | 0.152 | 0.177 | 0.202 | 0.181 | 0.168 | 0.208 |
| 950 | 0.212 | 0.194 | 0.185 | 0.207 | 0.243 | 0.209 | 0.200 | 0.241 |
| 900 | 0.240 | 0.226 | 0.219 | 0.239 | 0.275 | 0.243 | 0.233 | 0.273 |
| 850 | 0.278 | 0.267 | 0.263 | 0.276 | 0.316 | 0.284 | 0.269 | 0.318 |
| 800 | 0.325 | 0.316 | 0.315 | 0.319 | 0.370 | 0.339 | 0.312 | 0.373 |
| 750 | 0.382 | 0.378 | 0.380 | 0.378 | 0.437 | 0.404 | 0.366 | 0.444 |
| 700 | 0.455 | 0.452 | 0.461 | 0.449 | 0.516 | 0.486 | 0.433 | 0.527 |
| 650 | 0.570 | 0.574 | 0.557 | 0.532 | 0.664 | 0.591 | 0.510 | 0.623 |
| 600 | 0.730 | 0.730 | 0.703 | 0.640 | 0.856 | 0.713 | 0.636 | 0.769 |
| 550 | 0.961 | 0.937 | 0.893 | 0.817 | 1.108 | 0.915 | 0.801 | 0.961 |
| 500 | 1.354 | 1.202 | 1.143 | 1.041 | 1.452 | 1.189 | 1.012 | 1.216 |
| 450 | 1.846 | 1.571 | 1.468 | 1.334 | 1.919 | 1.541 | 1.285 | 1.531 |
| 400 | 2.469 | 2.074 | 1.924 | 1.762 | 2.495 | 1.992 | 1.640 | 1.935 |
| 350 | | 2.706 | 2.510 | 2.332 | | 2.520 | 2.102 | 2.443 |
| 300 | | | | 2.988 | | 3.103 | 2.656 | 3.004 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 370.2 | 311.3 | | 332.5 | | 335.1 | | 351.0 |
| 900 | 360.9 | 308.6 | 276.5 | 335.0 | 365.6 | 315.2 | 329.0 | 350.0 |
| 850 | 335.3 | 298.2 | 273.5 | 322.8 | 326.8 | 300.2 | 327.4 | 329.3 |
| 800 | 311.4 | 284.9 | 270.5 | 310.7 | 303.3 | 291.2 | 317.2 | 308.6 |
| 750 | 288.5 | 265.2 | 263.2 | 298.6 | 281.5 | 282.2 | 301.7 | 296.0 |
| 700 | 262.3 | 245.6 | 252.4 | 286.6 | 259.6 | 269.6 | 285.3 | 284.0 |
| 650 | 225.9 | 229.2 | 241.5 | 274.5 | 226.8 | 252.4 | 268.8 | 271.9 |
| 600 | 193.6 | 212.9 | 227.3 | 257.8 | 197.7 | 235.1 | 249.4 | 246.3 |
| 550 | 166.9 | 203.5 | 212.4 | 226.6 | 191.2 | 214.9 | 229.5 | 219.2 |
| 500 | 156.2 | 195.2 | 204.3 | 203.2 | 185.2 | 195.5 | 217.2 | 219.3 |
| 450 | 166.5 | 184.6 | 193.3 | 192.5 | 186.8 | 196.0 | 209.4 | 219.0 |
| 400 | 191.5 | 182.3 | 189.4 | 183.2 | 236.9 | 206.9 | 203.9 | 216.2 |
| 350 | | 258.7 | 212.3 | 186.3 | | 227.7 | 201.9 | 226.6 |
| 300 | | | | 280.7 | | 314.0 | 231.5 | 284.8 |
| LONG | -54.61 | -52.48 | -50.35 | -48.23 | -45.40 | -42.11 | -39.00 | -35.08 |
| LAT | 73.36 | 74.11 | 74.87 | 75.63 | 76.31 | 76.99 | 77.64 | 78.28 |
| QUAL | | | | | | | | |

PASS 3494 AT RESLUT, 63 612

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 65524 | 65541 | 65558 | 65616 | 65633 | 65650 | 65708 | 65726 |
| 1000 | 0.185 | 0.214 | 0.200 | 0.204 | 0.238 | 0.205 | 0.237 | 0.261 |
| 950 | 0.224 | 0.247 | 0.228 | 0.238 | 0.260 | 0.238 | 0.264 | 0.294 |
| 900 | 0.262 | 0.285 | 0.256 | 0.269 | 0.288 | 0.268 | 0.290 | 0.338 |
| 850 | 0.311 | 0.324 | 0.296 | 0.315 | 0.328 | 0.307 | 0.335 | 0.401 |
| 800 | 0.368 | 0.376 | 0.354 | 0.371 | 0.375 | 0.354 | 0.393 | 0.481 |
| 750 | 0.441 | 0.438 | 0.426 | 0.437 | 0.432 | 0.410 | 0.462 | 0.577 |
| 700 | 0.530 | 0.529 | 0.516 | 0.541 | 0.502 | 0.488 | 0.543 | 0.690 |
| 650 | 0.636 | 0.664 | 0.625 | 0.679 | 0.630 | 0.596 | 0.664 | 0.896 |
| 600 | 0.821 | 0.844 | 0.751 | 0.862 | 0.795 | 0.735 | 0.835 | 1.165 |
| 550 | 1.069 | 1.079 | 0.960 | 1.108 | 1.000 | 0.916 | 1.053 | 1.521 |
| 500 | 1.398 | 1.398 | 1.245 | 1.439 | 1.267 | 1.155 | 1.330 | 1.998 |
| 450 | 1.834 | 1.790 | 1.612 | 1.881 | 1.611 | 1.497 | 1.725 | 2.644 |
| 400 | 2.348 | 2.245 | 2.057 | 2.443 | 2.014 | 1.953 | 2.302 | 3.416 |
| 350 | | 2.730 | 2.558 | | | 2.570 | 3.046 | |
| 300 | | | 3.051 | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | | 355.0 | 388.2 | 389.4 | 622.7 | 381.2 | 485.2 | 391.8 |
| 900 | 293.5 | 358.5 | 357.4 | 363.8 | 484.0 | 373.7 | 443.7 | 352.3 |
| 850 | 289.2 | 348.5 | 331.4 | 321.7 | 392.0 | 352.8 | 382.8 | 312.0 |
| 800 | 285.0 | 321.9 | 307.2 | 296.1 | 361.4 | 332.8 | 328.8 | 282.0 |
| 750 | 273.2 | 295.3 | 282.9 | 270.7 | 330.8 | 312.8 | 304.2 | 260.4 |
| 700 | 257.6 | 262.5 | 267.0 | 245.9 | 298.3 | 286.6 | 279.5 | 238.8 |
| 650 | 241.3 | 224.2 | 253.9 | 221.3 | 244.1 | 256.8 | 253.8 | 218.2 |
| 600 | 207.8 | 208.4 | 240.9 | 206.2 | 216.7 | 236.0 | 227.4 | 197.7 |
| 550 | 190.3 | 201.1 | 215.1 | 197.3 | 215.6 | 224.2 | 215.4 | 188.0 |
| 500 | 187.6 | 200.8 | 196.1 | 191.7 | 215.2 | 209.2 | 203.9 | 182.0 |
| 450 | 194.2 | 214.6 | 202.5 | 189.6 | 218.9 | 191.0 | 183.8 | 193.3 |
| 400 | 209.0 | 244.0 | 219.9 | 216.5 | 237.1 | 187.0 | 176.2 | 240.1 |
| 350 | | 304.0 | 249.5 | | | 188.0 | 205.1 | |
| 300 | | | 445.9 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -30.46 | -26.10 | -21.73 | -16.06 | -10.58 | -5.10 | 0.76 | 6.70 |
| LAT | 78.69 | 79.08 | 79.46 | 79.77 | 80.05 | 80.33 | 80.44 | 80.30 |
| QUAL | | | | | | | | |

PASS 3494 AT RESLUT, 63 612

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 65743 | 65800 | 65819 | 65835 | 65852 | 65909 | 65927 | 65945 |
| 1000 | 0.236 | 0.260 | 0.249 | 0.254 | 0.211 | 0.197 | 0.190 | 0.168 |
| 950 | 0.272 | 0.302 | 0.288 | 0.281 | 0.247 | 0.229 | 0.217 | 0.193 |
| 900 | 0.311 | 0.347 | 0.336 | 0.323 | 0.285 | 0.260 | 0.246 | 0.225 |
| 850 | 0.368 | 0.409 | 0.396 | 0.379 | 0.338 | 0.300 | 0.289 | 0.262 |
| 800 | 0.442 | 0.484 | 0.473 | 0.443 | 0.402 | 0.347 | 0.343 | 0.307 |
| 750 | 0.533 | 0.570 | 0.570 | 0.517 | 0.478 | 0.402 | 0.409 | 0.359 |
| 700 | 0.643 | 0.670 | 0.703 | 0.617 | 0.568 | 0.487 | 0.490 | 0.421 |
| 650 | 0.795 | 0.811 | 0.905 | 0.751 | 0.679 | 0.590 | 0.584 | 0.512 |
| 600 | 1.013 | 0.997 | 1.186 | 0.938 | 0.857 | 0.730 | 0.706 | 0.624 |
| 550 | 1.303 | 1.279 | 1.608 | 1.192 | 1.104 | 0.909 | 0.897 | 0.798 |
| 500 | 1.686 | 1.661 | 2.212 | 1.583 | 1.475 | 1.205 | 1.159 | 1.036 |
| 450 | 2.206 | 2.202 | 2.962 | 2.149 | 1.993 | 1.629 | 1.514 | 1.400 |
| 400 | 2.865 | 2.974 | | 2.905 | 2.684 | 2.224 | 2.020 | 1.898 |
| 350 | 3.598 | 3.780 | | 3.680 | 3.474 | 2.967 | 2.670 | 2.647 |
| 300 | | | | | | 3.671 | 3.492 | 3.598 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 339.6 | 325.7 | 323.5 | 416.7 | 312.0 | 361.0 | 359.2 | 342.6 |
| 900 | 326.6 | 322.2 | 309.7 | 357.5 | 311.8 | 351.3 | 336.4 | 327.5 |
| 850 | 308.8 | 321.8 | 294.6 | 320.4 | 305.8 | 337.9 | 322.3 | 319.3 |
| 800 | 291.0 | 321.3 | 276.4 | 310.3 | 299.7 | 324.4 | 308.2 | 310.0 |
| 750 | 271.4 | 306.3 | 256.2 | 300.2 | 287.9 | 310.9 | 294.2 | 300.5 |
| 700 | 250.9 | 279.2 | 222.9 | 277.4 | 271.4 | 282.7 | 279.5 | 288.3 |
| 650 | 229.1 | 255.0 | 189.7 | 245.7 | 251.8 | 254.5 | 264.8 | 260.4 |
| 600 | 206.2 | 230.3 | 178.6 | 219.6 | 218.4 | 229.2 | 244.7 | 232.5 |
| 550 | 199.2 | 203.7 | 164.0 | 195.9 | 190.6 | 204.9 | 212.8 | 207.4 |
| 500 | 191.0 | 185.9 | 164.1 | 173.7 | 172.3 | 184.4 | 193.7 | 183.5 |
| 450 | 187.1 | 173.7 | 202.6 | 165.7 | 167.4 | 167.5 | 182.9 | 166.4 |
| 400 | 207.5 | 177.8 | | 187.6 | 182.0 | 169.4 | 178.3 | 160.8 |
| 350 | 301.6 | 327.1 | | 270.1 | 223.2 | 205.3 | 183.2 | 137.8 |
| 300 | | | | | | 289.9 | 198.8 | 229.2 |
| LONG | 12.30 | 17.91 | 23.06 | 27.39 | 32.00 | 35.94 | 39.47 | 43.00 |
| LAT | 80.16 | 80.03 | 79.55 | 79.15 | 78.72 | 78.19 | 77.53 | 76.88 |
| QUAL | | | | | | | | |

PASS 3494 AT RESLUT, 63 612

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 70002 |
| 1000 | 0.209 |
| 950 | 0.243 |
| 900 | 0.288 |
| 850 | 0.342 |
| 800 | 0.409 |
| 750 | 0.492 |
| 700 | 0.600 |
| 650 | 0.809 |
| 600 | 1.089 |
| 550 | 1.455 |
| 500 | 1.936 |
| 450 | |
| 400 | |
| 350 | |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 303.3 |
| 900 | 294.4 |
| 850 | 281.5 |
| 800 | 261.2 |
| 750 | 240.2 |
| 700 | 215.2 |
| 650 | 190.8 |
| 600 | 177.9 |
| 550 | 171.2 |
| 500 | 212.3 |
| 450 | |
| 400 | |
| 350 | |
| 300 | |

| | |
|---|---|
| LONG | 46.23 |
| LAT | 76.24 |
| QUAL | |

PASS 3506 AT AGASTA, 63 613

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 51429 | 51504 | 51557 | 51659 | 51724 | 51759 | 51817 | 51854 |
| 1000 | 0.127 | 0.119 | 0.094 | 0.087 | 0.112 | 0.121 | 0.103 | 0.115 |
| 950 | 0.135 | 0.125 | 0.102 | 0.094 | 0.117 | 0.130 | 0.111 | 0.123 |
| 900 | 0.142 | 0.130 | 0.111 | 0.100 | 0.124 | 0.139 | 0.121 | 0.129 |
| 850 | 0.150 | 0.137 | 0.120 | 0.107 | 0.133 | 0.152 | 0.131 | 0.137 |
| 800 | 0.159 | 0.146 | 0.132 | 0.116 | 0.144 | 0.167 | 0.143 | 0.147 |
| 750 | 0.173 | 0.157 | 0.145 | 0.127 | 0.156 | 0.184 | 0.157 | 0.158 |
| 700 | 0.199 | 0.179 | 0.161 | 0.139 | 0.175 | 0.206 | 0.176 | 0.182 |
| 650 | 0.237 | 0.213 | 0.183 | 0.158 | 0.204 | 0.237 | 0.203 | 0.218 |
| 600 | 0.304 | 0.257 | 0.216 | 0.185 | 0.245 | 0.281 | 0.237 | 0.264 |
| 550 | 0.406 | 0.355 | 0.288 | 0.226 | 0.320 | 0.354 | 0.289 | 0.320 |
| 500 | 0.553 | 0.514 | 0.422 | 0.324 | 0.432 | 0.484 | 0.380 | 0.410 |
| 450 | 0.789 | 0.747 | 0.670 | 0.507 | 0.625 | 0.707 | 0.562 | 0.674 |
| 400 | 1.097 | 1.183 | 0.991 | 0.778 | 0.910 | 1.019 | 0.823 | 0.955 |
| 350 | | | | 1.169 | 1.289 | 1.464 | 1.234 | 1.271 |
| 300 | | | | | | | 1.799 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 916.9 | 1316.1 | 602.3 | 702.1 | 1066.7 | 702.9 | 645.9 | 965.6 |
| 900 | 913.9 | 1111.4 | 599.9 | 700.0 | 805.2 | 835.4 | 606.2 | 830.5 |
| 850 | 899.7 | 828.4 | 573.9 | 644.1 | 689.5 | 776.9 | 579.2 | 735.2 |
| 800 | 795.1 | 692.6 | 537.2 | 592.4 | 620.4 | 719.9 | 532.9 | 639.9 |
| 750 | 472.3 | 556.8 | 494.5 | 540.7 | 551.3 | 465.6 | 471.5 | 544.6 |
| 700 | 322.5 | 361.5 | 429.8 | 489.0 | 373.1 | 404.6 | 414.1 | 444.1 |
| 650 | 250.3 | 266.3 | 347.2 | 403.5 | 299.0 | 335.9 | 362.1 | 341.0 |
| 600 | 199.7 | 220.0 | 240.6 | 300.4 | 243.5 | 269.1 | 310.0 | 258.4 |
| 550 | 170.2 | 161.8 | 171.9 | 200.3 | 200.7 | 206.0 | 236.5 | 219.0 |
| 500 | 157.7 | 135.7 | 122.8 | 135.2 | 162.1 | 165.8 | 161.0 | 178.9 |
| 450 | 145.2 | 126.0 | 120.0 | 118.8 | 143.8 | 145.0 | 129.6 | 136.1 |
| 400 | 286.5 | 434.0 | 175.2 | 123.1 | 145.2 | 139.2 | 128.4 | 143.7 |
| 350 | | | | 159.1 | 178.4 | 178.1 | 132.8 | 148.2 |
| 300 | | | | | | | 196.4 | |
| LONG | -71.14 | -70.87 | -70.49 | -70.08 | -69.92 | -69.71 | -69.60 | -69.38 |
| LAT | -27.75 | -25.79 | -22.81 | -19.32 | -17.90 | -15.93 | -14.91 | -12.82 |
| QUAL | 31 | 31 | 32 | 31 | 22 | 32 | 33 | 23 |

PASS 3506 AT AGASTA, 63 613

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 51927 | 51945 | 52019 | 52037 | 52112 | 52147 |
| 1000 | 0.109 | 0.104 | 0.112 | 0.113 | 0.101 | 0.106 |
| 950 | 0.118 | 0.113 | 0.119 | 0.122 | 0.109 | 0.114 |
| 900 | 0.126 | 0.121 | 0.128 | 0.131 | 0.120 | 0.126 |
| 850 | 0.135 | 0.131 | 0.138 | 0.142 | 0.135 | 0.141 |
| 800 | 0.148 | 0.142 | 0.150 | 0.155 | 0.153 | 0.159 |
| 750 | 0.165 | 0.158 | 0.172 | 0.177 | 0.174 | 0.206 |
| 700 | 0.187 | 0.179 | 0.201 | 0.211 | 0.205 | 0.284 |
| 650 | 0.215 | 0.206 | 0.237 | 0.256 | 0.250 | 0.390 |
| 600 | 0.249 | 0.251 | 0.282 | 0.314 | 0.316 | 0.502 |
| 550 | 0.324 | 0.330 | 0.357 | 0.383 | 0.402 | 0.626 |
| 500 | 0.433 | 0.443 | 0.579 | 0.501 | 0.584 | 0.874 |
| 450 | 0.616 | 0.593 | 0.848 | 0.794 | 0.859 | 1.277 |
| 400 | 0.913 | 0.884 | 1.127 | 1.148 | 1.256 | 1.756 |
| 350 | 1.335 | 1.378 | 1.597 | 1.623 | 1.834 | |
| 300 | | 1.979 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | |
|---|---|---|---|---|---|---|
| 950 | 769.1 | 662.0 | 927.8 | 815.4 | 570.1 | 580.6 |
| 900 | 725.3 | 672.6 | 677.7 | 641.4 | 487.8 | 488.0 |
| 850 | 612.0 | 610.3 | 581.1 | 554.6 | 419.0 | 395.8 |
| 800 | 520.1 | 538.6 | 484.4 | 467.8 | 385.8 | 303.5 |
| 750 | 444.4 | 467.2 | 411.2 | 390.1 | 351.0 | 260.8 |
| 700 | 380.2 | 396.1 | 341.1 | 320.0 | 283.9 | 230.2 |
| 650 | 328.7 | 304.4 | 285.7 | 258.6 | 236.9 | 199.6 |
| 600 | 277.3 | 238.0 | 240.4 | 233.9 | 210.2 | 189.2 |
| 550 | 219.8 | 198.6 | 195.4 | 209.3 | 183.4 | 181.4 |
| 500 | 162.2 | 170.6 | 151.3 | 179.0 | 149.8 | 163.5 |
| 450 | 137.7 | 151.7 | 143.3 | 133.2 | 131.3 | 152.7 |
| 400 | 135.6 | 133.1 | 156.2 | 140.3 | 134.0 | 200.5 |
| 350 | 142.1 | 127.6 | 195.0 | 159.6 | 162.8 | |
| 300 | | 260.3 | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| LONG | -69.20 | -69.09 | -68.91 | -68.81 | -68.63 | -68.44 |
| LAT | -10.95 | -9.93 | -8.01 | -6.99 | -5.01 | -3.03 |
| QUAL | 23 | 22 | 22 | 21 | 22 | 22 |

PASS 3507 AT QUITOE, 63 613

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 52337 | 52429 | 52724 | 52741 | 52816 | 52909 |
| 1000 | 0.097 | 0.084 | 0.097 | 0.103 | 0.104 | 0.135 |
| 950 | 0.109 | 0.090 | 0.104 | 0.111 | 0.111 | 0.141 |
| 900 | 0.122 | 0.099 | 0.110 | 0.115 | 0.116 | 0.146 |
| 850 | 0.138 | 0.110 | 0.115 | 0.119 | 0.122 | 0.151 |
| 800 | 0.158 | 0.122 | 0.119 | 0.125 | 0.129 | 0.160 |
| 750 | 0.181 | 0.139 | 0.130 | 0.135 | 0.138 | 0.175 |
| 700 | 0.208 | 0.173 | 0.145 | 0.151 | 0.149 | 0.200 |
| 650 | 0.296 | 0.219 | 0.164 | 0.175 | 0.175 | 0.239 |
| 600 | 0.413 | 0.293 | 0.208 | 0.329 | 0.212 | 0.305 |
| 550 | 0.605 | 0.467 | 0.281 | 0.509 | 0.277 | 0.410 |
| 500 | 0.919 | 0.776 | 0.435 | 0.627 | 0.414 | 0.568 |
| 450 | 1.464 | 1.350 | 0.700 | 0.852 | 0.695 | 0.804 |
| 400 | 2.322 | 2.350 | 1.123 | 1.399 | 1.129 | 1.156 |
| 350 | 3.461 | | 1.747 | 1.893 | 1.692 | 1.616 |
| 300 | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | |
|---|---|---|---|---|---|---|
| 950 | 430.4 | 592.6 | | 999.9 | 898.3 | 1322.6 |
| 900 | 403.7 | 502.5 | 1013.7 | 1418.0 | 983.1 | 1425.4 |
| 850 | 371.7 | 448.1 | 1019.4 | 1241.1 | 950.4 | 1071.8 |
| 800 | 338.8 | 394.2 | 825.5 | 878.1 | 825.3 | 766.3 |
| 750 | 305.9 | 339.2 | 675.2 | 597.4 | 661.1 | 514.9 |
| 700 | 273.1 | 279.8 | 527.0 | 451.0 | 501.8 | 333.3 |
| 650 | 209.0 | 220.5 | 378.8 | 242.4 | 327.4 | 243.6 |
| 600 | 144.4 | 163.4 | 257.0 | 136.2 | 224.0 | 191.8 |
| 550 | 129.5 | 113.9 | 152.1 | 139.3 | 159.5 | 165.4 |
| 500 | 117.4 | 96.8 | 118.4 | 149.4 | 113.7 | 151.6 |
| 450 | 109.7 | 90.8 | 108.3 | 140.1 | 98.4 | 140.3 |
| 400 | 114.6 | 93.3 | 111.6 | 134.4 | 113.7 | 145.9 |
| 350 | 228.1 | | 127.9 | 173.3 | 135.1 | 161.0 |
| 300 | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| LONG | -67.86 | -67.58 | -66.59 | -66.48 | -66.27 | -65.92 |
| LAT | 3.19 | 6.13 | 16.04 | 17.00 | 18.97 | 21.97 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3507 AT RESLUT, 63 613

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 54316 | 54332 | 54350 | 54409 | 54426 | 54443 | 54500 | 54519 |
| 1000 | 0.133 | 0.155 | 0.163 | 0.148 | 0.145 | 0.157 | 0.216 | 0.210 |
| 950 | 0.167 | 0.192 | 0.198 | 0.195 | 0.184 | 0.201 | 0.246 | 0.249 |
| 900 | 0.199 | 0.227 | 0.229 | 0.230 | 0.216 | 0.235 | 0.281 | 0.289 |
| 850 | 0.236 | 0.268 | 0.265 | 0.273 | 0.253 | 0.273 | 0.325 | 0.338 |
| 800 | 0.281 | 0.313 | 0.307 | 0.322 | 0.297 | 0.317 | 0.382 | 0.399 |
| 750 | 0.332 | 0.365 | 0.358 | 0.381 | 0.352 | 0.371 | 0.450 | 0.482 |
| 700 | 0.397 | 0.427 | 0.420 | 0.458 | 0.425 | 0.442 | 0.529 | 0.587 |
| 650 | 0.485 | 0.511 | 0.499 | 0.572 | 0.529 | 0.540 | 0.629 | 0.730 |
| 600 | 0.598 | 0.614 | 0.595 | 0.720 | 0.665 | 0.667 | 0.771 | 0.949 |
| 550 | 0.749 | 0.755 | 0.718 | 0.902 | 0.851 | 0.844 | 0.964 | 1.224 |
| 500 | 0.957 | 0.944 | 0.899 | 1.198 | 1.096 | 1.071 | 1.222 | 1.585 |
| 450 | 1.250 | 1.209 | 1.151 | 1.595 | 1.449 | 1.362 | 1.559 | 2.151 |
| 400 | 1.639 | 1.590 | 1.509 | | | 1.776 | | |
| 350 | | 2.079 | 2.009 | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 900 | 279.4 | 296.9 | 334.0 | 286.2 | 304.3 | 318.0 | 362.5 | 319.7 |
| 850 | 288.0 | 310.0 | 335.2 | 294.8 | 307.2 | 326.4 | 335.2 | 311.6 |
| 800 | 290.4 | 320.7 | 333.8 | 299.2 | 298.7 | 323.1 | 307.6 | 275.6 |
| 750 | 289.3 | 313.2 | 318.1 | 278.9 | 280.4 | 298.9 | 297.7 | 257.9 |
| 700 | 259.4 | 291.7 | 293.5 | 239.0 | 242.2 | 263.1 | 289.8 | 242.5 |
| 650 | 245.2 | 276.9 | 282.6 | 231.0 | 228.5 | 248.0 | 273.2 | 223.2 |
| 600 | 234.7 | 262.1 | 271.6 | 223.0 | 215.3 | 233.0 | 241.9 | 195.9 |
| 550 | 218.8 | 242.3 | 254.0 | 214.9 | 205.5 | 218.8 | 221.1 | 195.4 |
| 500 | 198.0 | 219.2 | 222.2 | 182.6 | 190.7 | 208.5 | 210.3 | 180.2 |
| 450 | 188.5 | 196.5 | 197.1 | 584.2 | 168.9 | 201.2 | 197.9 | 160.2 |
| 400 | 186.3 | 182.3 | 195.7 | | | 190.1 | | |
| 350 | | 304.0 | 1546.5 | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -47.99 | -46.86 | -45.58 | -44.00 | -42.35 | -40.70 | -39.05 | -36.46 |
| LAT | 68.57 | 69.38 | 70.28 | 71.21 | 72.02 | 72.84 | 73.65 | 74.48 |
| QUAL | 32 | 32 | 32 | 32 | 32 | 33 | 33 | 32 |

PASS 3507 AT RESLUT, 63 613

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 54536 | 54553 | 54611 | 54628 | 54645 | 54702 | 54721 | 54738 |
| 1000 | 0.220 | 0.217 | 0.177 | 0.226 | 0.202 | 0.218 | 0.212 | 0.211 |
| 950 | 0.253 | 0.250 | 0.213 | 0.255 | 0.233 | 0.244 | 0.242 | 0.252 |
| 900 | 0.288 | 0.280 | 0.243 | 0.291 | 0.267 | 0.274 | 0.275 | 0.289 |
| 850 | 0.335 | 0.325 | 0.283 | 0.336 | 0.309 | 0.314 | 0.317 | 0.335 |
| 800 | 0.400 | 0.382 | 0.336 | 0.393 | 0.360 | 0.363 | 0.369 | 0.391 |
| 750 | 0.482 | 0.445 | 0.393 | 0.465 | 0.422 | 0.414 | 0.434 | 0.445 |
| 700 | 0.580 | 0.528 | 0.466 | 0.553 | 0.498 | 0.485 | 0.533 | 0.514 |
| 650 | 0.706 | 0.630 | 0.567 | 0.687 | 0.607 | 0.574 | 0.665 | 0.596 |
| 600 | 0.921 | 0.781 | 0.696 | 0.868 | 0.752 | 0.685 | 0.837 | 0.692 |
| 550 | 1.191 | 1.016 | 0.883 | 1.095 | 0.940 | 0.846 | 1.062 | 0.897 |
| 500 | 1.542 | 1.325 | 1.136 | 1.389 | 1.224 | 1.050 | 1.383 | 1.159 |
| 450 | 2.063 | 1.793 | 1.481 | 1.776 | 1.597 | 1.330 | 1.848 | 1.515 |
| 400 | 2.817 | 2.457 | | | 2.079 | 1.718 | 2.454 | 2.114 |
| 350 | | 3.187 | | | | 2.294 | | 2.938 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 391.7 | 444.9 | 395.9 | 382.8 | 367.1 | 461.7 | 405.8 | 344.1 |
| 900 | 355.5 | 382.9 | 358.5 | 361.3 | 353.1 | 417.9 | 378.7 | 345.6 |
| 850 | 318.5 | 351.9 | 327.8 | 334.9 | 338.8 | 380.0 | 352.5 | 344.2 |
| 800 | 279.0 | 324.7 | 313.4 | 304.2 | 325.7 | 356.6 | 329.1 | 358.6 |
| 750 | 260.8 | 296.5 | 293.1 | 283.3 | 302.9 | 329.3 | 264.2 | 344.4 |
| 700 | 248.4 | 278.0 | 273.9 | 262.3 | 276.5 | 310.8 | 251.1 | 323.1 |
| 650 | 232.1 | 259.6 | 256.3 | 239.7 | 249.4 | 292.7 | 237.9 | 301.8 |
| 600 | 199.9 | 228.7 | 237.4 | 218.6 | 228.0 | 273.9 | 219.4 | 280.1 |
| 550 | 194.1 | 189.2 | 210.8 | 215.1 | 210.2 | 247.4 | 200.1 | 218.2 |
| 500 | 183.8 | 179.5 | 194.9 | 207.8 | 195.9 | 223.9 | 183.7 | 189.3 |
| 450 | 165.3 | 160.8 | 177.4 | 199.0 | 190.2 | 209.1 | 174.5 | 170.0 |
| 400 | 180.2 | 176.4 | | | 210.0 | 182.7 | 195.0 | 150.9 |
| 350 | | 200.9 | | | | 161.0 | | 189.4 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -34.15 | -31.83 | -28.74 | -25.44 | -22.13 | -18.68 | -13.57 | -9.00 |
| LAT | 75.22 | 75.96 | 76.67 | 77.30 | 77.92 | 78.52 | 79.01 | 79.44 |
| QUAL | 32 | 32 | 33 | 33 | 32 | 33 | 33 | 32 |

PASS 3507 AT RESLUT, 63 613

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 54755 | 54812 | 54831 | 54848 | 54905 | 54923 | 54941 | 54958 |
| 1000 | 0.209 | 0.203 | 0.216 | 0.228 | 0.248 | 0.244 | 0.248 | 0.199 |
| 950 | 0.235 | 0.235 | 0.248 | 0.262 | 0.285 | 0.284 | 0.284 | 0.233 |
| 900 | 0.264 | 0.272 | 0.285 | 0.297 | 0.324 | 0.327 | 0.324 | 0.269 |
| 850 | 0.299 | 0.315 | 0.330 | 0.343 | 0.369 | 0.374 | 0.376 | 0.313 |
| 800 | 0.340 | 0.362 | 0.386 | 0.399 | 0.420 | 0.425 | 0.443 | 0.369 |
| 750 | 0.395 | 0.414 | 0.457 | 0.465 | 0.485 | 0.490 | 0.531 | 0.441 |
| 700 | 0.464 | 0.486 | 0.548 | 0.542 | 0.564 | 0.567 | 0.638 | 0.541 |
| 650 | 0.552 | 0.577 | 0.677 | 0.629 | 0.654 | 0.656 | 0.785 | 0.663 |
| 600 | 0.658 | 0.690 | 0.855 | 0.793 | 0.804 | 0.792 | 0.982 | 0.845 |
| 550 | 0.811 | 0.861 | 1.096 | 1.035 | 1.020 | 0.968 | 1.259 | 1.109 |
| 500 | 1.013 | 1.084 | 1.441 | 1.353 | 1.321 | 1.234 | 1.652 | 1.501 |
| 450 | 1.308 | 1.380 | 2.127 | 1.931 | 1.755 | 1.608 | 2.219 | 2.058 |
| 400 | 1.777 | 1.827 | 3.035 | 2.741 | 2.381 | 2.200 | 2.975 | 2.852 |
| 350 | 2.608 | 2.446 | | | 3.230 | | | 3.671 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 415.4 | 342.4 | 351.1 | 410.3 | 391.4 | | 381.9 | 343.4 |
| 900 | 403.1 | 347.0 | 345.4 | 381.2 | 390.2 | 362.3 | 353.4 | 330.8 |
| 850 | 385.4 | 353.2 | 329.2 | 352.8 | 373.8 | 364.9 | 318.0 | 311.9 |
| 800 | 366.0 | 346.6 | 303.1 | 328.2 | 351.6 | 356.9 | 287.0 | 288.7 |
| 750 | 323.6 | 327.5 | 282.8 | 309.0 | 333.1 | 341.2 | 274.6 | 268.4 |
| 700 | 296.8 | 307.1 | 259.5 | 291.8 | 314.6 | 325.4 | 262.2 | 251.6 |
| 650 | 283.0 | 286.6 | 230.6 | 274.6 | 296.1 | 309.5 | 241.1 | 234.8 |
| 600 | 269.1 | 265.3 | 212.0 | 232.4 | 249.6 | 274.8 | 215.0 | 204.1 |
| 550 | 242.3 | 234.9 | 191.6 | 186.9 | 202.8 | 236.2 | 195.9 | 176.6 |
| 500 | 211.5 | 211.6 | 160.3 | 166.6 | 189.0 | 206.9 | 177.4 | 163.0 |
| 450 | 185.2 | 196.8 | 130.8 | 140.7 | 169.2 | 178.0 | 169.4 | 157.5 |
| 400 | 145.6 | 175.2 | 159.0 | 151.2 | 162.2 | 134.9 | 212.5 | 158.1 |
| 350 | 143.9 | 181.3 | | | 186.8 | | | 560.2 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -4.43 | 0.87 | 7.12 | 12.71 | 18.28 | 24.12 | 29.95 | 35.46 |
| LAT | 79.87 | 80.10 | 80.26 | 80.41 | 80.45 | 80.25 | 80.05 | 79.86 |
| QUAL | 32 | 33 | 32 | 33 | 32 | 32 | 32 | 32 |

PASS 3507 AT RESLUT, 63 613

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 55015 | 55033 | 55050 | 55107 | 55125 |
| 1000 | 0.229 | 0.236 | 0.216 | 0.218 | 0.241 |
| 950 | 0.251 | 0.266 | 0.245 | 0.249 | 0.270 |
| 900 | 0.285 | 0.309 | 0.283 | 0.294 | 0.308 |
| 850 | 0.332 | 0.368 | 0.338 | 0.351 | 0.357 |
| 800 | 0.390 | 0.440 | 0.407 | 0.419 | 0.419 |
| 750 | 0.463 | 0.537 | 0.496 | 0.505 | 0.499 |
| 700 | 0.551 | 0.660 | 0.605 | 0.612 | 0.594 |
| 650 | 0.653 | 0.807 | 0.733 | 0.738 | 0.706 |
| 600 | 0.770 | 0.976 | 0.881 | 0.912 | 0.881 |
| 550 | 0.953 | 1.326 | 1.183 | 1.213 | 1.181 |
| 500 | 1.250 | 1.841 | 1.565 | 1.597 | 1.556 |
| 450 | 1.630 | 2.552 | 2.098 | 2.100 | 2.021 |
| 400 | 2.139 | | 2.828 | 2.803 | 2.644 |
| 350 | 2.888 | | | 3.587 | 3.412 |
| 300 | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | 302.6 | 384.0 | 362.9 | 353.5 | 402.9 |
| 900 | 395.7 | 320.1 | 316.1 | 302.5 | 361.9 |
| 850 | 357.2 | 294.3 | 292.3 | 290.2 | 327.0 |
| 800 | 318.7 | 268.5 | 268.6 | 277.6 | 298.5 |
| 750 | 299.2 | 252.6 | 254.4 | 265.3 | 283.5 |
| 700 | 287.3 | 241.2 | 245.6 | 252.6 | 268.6 |
| 650 | 275.3 | 229.8 | 236.8 | 239.9 | 253.6 |
| 600 | 263.4 | 218.4 | 228.0 | 224.4 | 233.5 |
| 550 | 242.2 | 191.2 | 205.1 | 202.0 | 205.9 |
| 500 | 209.9 | 157.6 | 182.1 | 183.8 | 186.7 |
| 450 | 186.3 | 113.2 | 169.9 | 180.0 | 188.3 |
| 400 | 178.4 | | 141.7 | 165.5 | 196.3 |
| 350 | 265.1 | | | 1218.4 | 229.7 |
| 300 | | | | | |
| LONG | 39.98 | 44.63 | 49.02 | 52.89 | 56.22 |
| LAT | 79.43 | 78.94 | 78.47 | 77.93 | 77.25 |
| QUAL | 32 | 22 | 22 | 22 | 22 |

PASS 3527 AT RESLUT, 63 614

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 170219 | 170237 | 170254 | 170310 | 170329 | 170347 | 170404 | 170421 |
| 1000 | 0.228 | 0.198 | 0.190 | 0.235 | 0.219 | 0.268 | 0.262 | 0.303 |
| 950 | 0.252 | 0.221 | 0.213 | 0.262 | 0.244 | 0.302 | 0.300 | 0.335 |
| 900 | 0.288 | 0.251 | 0.241 | 0.293 | 0.276 | 0.343 | 0.340 | 0.370 |
| 850 | 0.352 | 0.289 | 0.279 | 0.333 | 0.317 | 0.388 | 0.389 | 0.415 |
| 800 | 0.383 | 0.336 | 0.327 | 0.381 | 0.367 | 0.440 | 0.447 | 0.465 |
| 750 | 0.449 | 0.393 | 0.388 | 0.439 | 0.427 | 0.508 | 0.511 | 0.524 |
| 700 | 0.528 | 0.460 | 0.462 | 0.506 | 0.497 | 0.590 | 0.600 | 0.611 |
| 650 | 0.620 | 0.581 | 0.549 | 0.617 | 0.595 | 0.724 | 0.712 | 0.725 |
| 600 | 0.772 | 0.740 | 0.675 | 0.763 | 0.726 | 0.895 | 0.848 | 0.864 |
| 550 | 0.972 | 0.935 | 0.867 | 0.942 | 0.890 | 1.109 | 1.056 | 1.048 |
| 500 | 1.221 | 1.214 | 1.106 | 1.180 | 1.098 | 1.377 | 1.313 | 1.267 |
| 450 | 1.523 | 1.568 | 1.397 | 1.463 | 1.344 | 1.689 | 1.640 | 1.532 |
| 400 | 1.892 | 2.084 | 1.748 | 1.822 | 1.647 | 1.996 | 2.030 | 1.830 |
| 350 | 2.340 | 2.547 | 2.182 | 2.242 | 1.942 | | 2.328 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 465.8 | 422.3 | 400.0 | 444.3 | 433.5 | 402.8 | 371.4 | 492.2 |
| 900 | 379.0 | 378.3 | 365.1 | 413.7 | 382.9 | 403.5 | 378.9 | 467.3 |
| 850 | 352.1 | 346.6 | 337.3 | 387.9 | 359.7 | 388.1 | 373.4 | 435.0 |
| 800 | 327.8 | 318.5 | 309.5 | 360.5 | 337.2 | 361.9 | 355.9 | 399.2 |
| 750 | 309.3 | 292.8 | 293.3 | 329.0 | 318.3 | 326.5 | 328.5 | 363.4 |
| 700 | 291.4 | 267.0 | 279.1 | 297.5 | 299.4 | 291.6 | 307.6 | 333.9 |
| 650 | 273.5 | 247.9 | 264.3 | 276.8 | 279.9 | 272.5 | 287.4 | 306.0 |
| 600 | 254.3 | 229.2 | 245.1 | 257.6 | 259.9 | 253.4 | 267.2 | 281.2 |
| 550 | 234.9 | 210.8 | 220.7 | 238.5 | 248.8 | 243.6 | 251.1 | 277.1 |
| 500 | 226.9 | 198.7 | 211.6 | 236.7 | 250.1 | 249.5 | 235.0 | 272.9 |
| 450 | 230.6 | 194.0 | 219.3 | 234.9 | 253.3 | 271.6 | 246.8 | 284.9 |
| 400 | 239.4 | 217.8 | 231.4 | 246.7 | 286.8 | 980.6 | 282.1 | 370.0 |
| 350 | 327.9 | 596.8 | 301.7 | 318.1 | 387.5 | | 873.1 | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -110.04 | -107.24 | -104.59 | -102.56 | -100.48 | -98.51 | -96.77 | -95.42 |
| LAT | 76.35 | 75.60 | 74.90 | 74.18 | 73.30 | 72.46 | 71.66 | 70.82 |
| QUAL | 21 | 32 | 31 | 32 | 31 | 31 | 32 | 31 |

PASS 3527 AT RESLUT, 63 614

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 170440 | 170457 | 170514 | 170542 | 170548 | 170606 | 170623 | 170641 |
| 1000 | 0.240 | 0.226 | 0.236 | 0.217 | 0.189 | 0.177 | 0.198 | 0.171 |
| 950 | 0.269 | 0.254 | 0.258 | 0.235 | 0.212 | 0.200 | 0.219 | 0.195 |
| 900 | 0.306 | 0.290 | 0.287 | 0.260 | 0.239 | 0.224 | 0.247 | 0.222 |
| 850 | 0.354 | 0.332 | 0.323 | 0.293 | 0.274 | 0.254 | 0.282 | 0.254 |
| 800 | 0.409 | 0.382 | 0.364 | 0.333 | 0.315 | 0.291 | 0.323 | 0.295 |
| 750 | 0.481 | 0.446 | 0.418 | 0.379 | 0.363 | 0.343 | 0.379 | 0.343 |
| 700 | 0.579 | 0.529 | 0.492 | 0.448 | 0.429 | 0.410 | 0.462 | 0.401 |
| 650 | 0.700 | 0.636 | 0.589 | 0.551 | 0.519 | 0.496 | 0.567 | 0.496 |
| 600 | 0.864 | 0.779 | 0.726 | 0.678 | 0.630 | 0.600 | 0.698 | 0.615 |
| 550 | 1.068 | 0.953 | 0.896 | 0.826 | 0.778 | 0.724 | 0.861 | 0.763 |
| 500 | 1.340 | 1.189 | 1.110 | 0.992 | 0.956 | 0.894 | 1.051 | 0.938 |
| 450 | 1.698 | 1.487 | 1.422 | 1.178 | 1.187 | 1.098 | 1.292 | 1.188 |
| 400 | 2.024 | 1.826 | 1.798 | 1.459 | 1.471 | 1.362 | 1.601 | 1.502 |
| 350 | | 2.105 | 2.242 | 1.814 | 1.819 | 1.686 | 1.993 | 1.903 |
| 300 | | | | 2.227 | 2.226 | 2.144 | 2.483 | 2.429 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 404.4 | 404.2 | 509.1 | 547.4 | 410.5 | 419.4 | 453.6 | 382.7 |
| 900 | 375.3 | 379.3 | 457.8 | 477.7 | 390.8 | 404.1 | 393.6 | 368.1 |
| 850 | 346.3 | 357.8 | 414.3 | 414.1 | 364.6 | 371.4 | 358.9 | 345.6 |
| 800 | 315.5 | 333.1 | 378.6 | 374.1 | 342.1 | 336.3 | 328.0 | 324.6 |
| 750 | 292.8 | 309.2 | 339.8 | 334.1 | 319.5 | 306.4 | 300.2 | 303.8 |
| 700 | 276.2 | 285.8 | 297.2 | 306.8 | 297.1 | 276.5 | 278.1 | 283.3 |
| 650 | 259.7 | 266.3 | 264.9 | 290.1 | 274.7 | 268.5 | 256.0 | 265.4 |
| 600 | 246.0 | 254.6 | 253.1 | 273.4 | 254.0 | 262.6 | 247.2 | 247.5 |
| 550 | 232.9 | 242.9 | 241.3 | 264.0 | 247.1 | 256.6 | 247.4 | 233.1 |
| 500 | 220.5 | 240.0 | 230.5 | 261.5 | 240.2 | 249.0 | 247.7 | 229.2 |
| 450 | 208.8 | 239.8 | 223.0 | 259.0 | 238.7 | 241.4 | 243.3 | 225.3 |
| 400 | 2134.5 | 282.3 | 222.2 | 252.2 | 238.7 | 231.6 | 234.1 | 217.4 |
| 350 | | 512.1 | 264.8 | 245.1 | 247.3 | 220.5 | 235.9 | 204.8 |
| 300 | | | | 286.6 | 311.1 | 194.7 | 244.2 | 174.8 |
| LONG | -93.92 | -92.57 | -91.50 | -89.84 | -89.48 | -88.50 | -87.72 | -86.90 |
| LAT | 69.89 | 69.05 | 68.18 | 66.74 | 66.44 | 65.50 | 64.61 | 63.67 |
| QUAL | 31 | 32 | 31 | 32 | 32 | 31 | 32 | 32 |

PASS 3527 AT RESLUT, 63 614

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 170658 | 170716 | 170733 | 170751 | 170808 | 170826 | 170843 | 170900 |
| 1000 | 0.160 | 0.192 | 0.187 | 0.184 | 0.165 | 0.151 | 0.158 | 0.156 |
| 950 | 0.204 | 0.215 | 0.210 | 0.205 | 0.189 | 0.172 | 0.179 | 0.177 |
| 900 | 0.230 | 0.242 | 0.236 | 0.230 | 0.213 | 0.196 | 0.204 | 0.203 |
| 850 | 0.261 | 0.275 | 0.268 | 0.259 | 0.241 | 0.225 | 0.233 | 0.232 |
| 800 | 0.300 | 0.315 | 0.305 | 0.294 | 0.275 | 0.258 | 0.267 | 0.267 |
| 750 | 0.346 | 0.367 | 0.359 | 0.343 | 0.318 | 0.298 | 0.310 | 0.311 |
| 700 | 0.418 | 0.437 | 0.428 | 0.404 | 0.378 | 0.356 | 0.366 | 0.365 |
| 650 | 0.509 | 0.528 | 0.524 | 0.487 | 0.456 | 0.428 | 0.440 | 0.447 |
| 600 | 0.627 | 0.648 | 0.648 | 0.592 | 0.566 | 0.534 | 0.540 | 0.547 |
| 550 | 0.774 | 0.792 | 0.799 | 0.717 | 0.702 | 0.666 | 0.663 | 0.682 |
| 500 | 0.947 | 0.990 | 0.992 | 0.916 | 0.865 | 0.830 | 0.854 | 0.869 |
| 450 | 1.197 | 1.239 | 1.272 | 1.164 | 1.107 | 1.099 | 1.103 | 1.105 |
| 400 | 1.507 | 1.562 | 1.617 | 1.476 | 1.401 | 1.432 | 1.428 | 1.417 |
| 350 | 1.917 | 1.955 | 2.057 | 1.877 | 1.809 | 1.854 | 1.830 | 1.815 |
| 300 | 2.409 | 2.506 | 2.584 | 2.371 | 2.343 | 2.355 | 2.343 | 2.337 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 402.4 | 426.8 | 413.9 | 446.5 | 392.6 | 382.0 | 390.2 | 374.9 |
| 900 | 388.9 | 400.6 | 402.0 | 425.3 | 394.2 | 370.0 | 371.8 | 370.3 |
| 850 | 362.7 | 373.1 | 374.0 | 389.9 | 378.7 | 359.2 | 358.6 | 354.9 |
| 800 | 336.8 | 344.9 | 346.1 | 355.1 | 352.7 | 339.2 | 345.9 | 333.9 |
| 750 | 311.0 | 314.5 | 307.2 | 323.9 | 322.1 | 319.5 | 322.0 | 308.7 |
| 700 | 284.4 | 282.4 | 267.7 | 292.6 | 283.4 | 281.6 | 288.1 | 284.6 |
| 650 | 257.7 | 260.6 | 253.2 | 272.4 | 253.0 | 248.5 | 262.9 | 264.5 |
| 600 | 244.2 | 251.3 | 245.6 | 254.7 | 245.3 | 236.5 | 245.3 | 244.4 |
| 550 | 238.5 | 241.9 | 237.9 | 237.0 | 237.6 | 224.5 | 227.7 | 228.2 |
| 500 | 232.7 | 231.8 | 229.2 | 228.5 | 229.8 | 212.8 | 212.5 | 216.9 |
| 450 | 225.4 | 221.4 | 218.1 | 220.0 | 218.6 | 204.5 | 197.7 | 207.7 |
| 400 | 217.9 | 217.9 | 211.4 | 214.8 | 207.4 | 196.1 | 200.4 | 204.5 |
| 350 | 228.9 | 215.2 | 218.3 | 214.1 | 210.4 | 208.4 | 208.4 | 209.4 |
| 300 | 280.0 | 224.1 | 229.0 | 216.5 | 219.7 | 268.2 | 233.3 | 234.8 |
| LONG | -86.12 | -85.46 | -84.85 | -84.20 | -83.65 | -83.13 | -82.63 | -82.14 |
| LAT | 62.77 | 61.82 | 60.91 | 59.95 | 59.04 | 58.06 | 57.14 | 56.22 |
| QUAL | 31 | 31 | 31 | 33 | 32 | 22 | 21 | 22 |

PASS 3527 AT OTTAWA, 63 614

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 171215 | 171250 | 171325 | 171400 | 171435 | 171510 | 171545 | 171619 |
| 1000 | 0.143 | 0.160 | 0.153 | 0.178 | 0.176 | 0.186 | 0.190 | 0.211 |
| 950 | 0.163 | 0.182 | 0.177 | 0.201 | 0.201 | 0.207 | 0.219 | 0.243 |
| 900 | 0.186 | 0.205 | 0.201 | 0.226 | 0.228 | 0.233 | 0.252 | 0.280 |
| 850 | 0.211 | 0.234 | 0.231 | 0.259 | 0.260 | 0.267 | 0.293 | 0.323 |
| 800 | 0.243 | 0.268 | 0.266 | 0.299 | 0.300 | 0.311 | 0.344 | 0.376 |
| 750 | 0.282 | 0.312 | 0.311 | 0.351 | 0.350 | 0.365 | 0.405 | 0.441 |
| 700 | 0.332 | 0.365 | 0.372 | 0.413 | 0.413 | 0.429 | 0.478 | 0.524 |
| 650 | 0.399 | 0.440 | 0.450 | 0.497 | 0.493 | 0.523 | 0.580 | 0.636 |
| 600 | 0.490 | 0.541 | 0.554 | 0.604 | 0.601 | 0.651 | 0.707 | 0.785 |
| 550 | 0.614 | 0.668 | 0.681 | 0.762 | 0.763 | 0.830 | 0.897 | 0.997 |
| 500 | 0.793 | 0.873 | 0.893 | 0.982 | 0.986 | 1.072 | 1.179 | 1.310 |
| 450 | 1.043 | 1.156 | 1.199 | 1.306 | 1.303 | 1.440 | 1.588 | 1.746 |
| 400 | 1.407 | 1.568 | 1.626 | 1.737 | 1.727 | 1.941 | 2.153 | 2.355 |
| 350 | 1.920 | 2.139 | 2.207 | 2.314 | 2.307 | 2.591 | 2.882 | 3.122 |
| 300 | 2.602 | 2.873 | 2.941 | 3.081 | 2.997 | 3.378 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 380.3 | 396.6 | 373.7 | 412.1 | 392.9 | 434.8 | 354.4 | 356.2 |
| 900 | 375.5 | 393.0 | 363.9 | 381.5 | 377.2 | 391.7 | 339.3 | 346.5 |
| 850 | 361.2 | 368.0 | 347.9 | 357.9 | 358.9 | 356.4 | 324.4 | 335.0 |
| 800 | 342.2 | 340.3 | 331.5 | 334.4 | 339.3 | 326.0 | 309.6 | 322.6 |
| 750 | 321.9 | 317.1 | 308.6 | 312.7 | 317.7 | 301.9 | 294.0 | 302.4 |
| 700 | 296.1 | 293.9 | 277.6 | 291.0 | 294.1 | 279.2 | 278.2 | 274.9 |
| 650 | 263.6 | 269.8 | 253.5 | 265.8 | 266.1 | 251.8 | 258.4 | 250.4 |
| 600 | 236.3 | 245.2 | 237.5 | 239.7 | 233.6 | 222.7 | 238.6 | 225.4 |
| 550 | 212.7 | 220.3 | 221.0 | 215.6 | 211.4 | 203.7 | 203.1 | 198.1 |
| 500 | 193.8 | 193.3 | 184.5 | 192.5 | 192.2 | 186.4 | 179.1 | 184.5 |
| 450 | 177.9 | 173.3 | 170.0 | 177.7 | 183.6 | 171.7 | 167.8 | 169.6 |
| 400 | 167.1 | 162.7 | 163.2 | 175.1 | 173.2 | 170.6 | 168.3 | 171.6 |
| 350 | 162.5 | 165.8 | 168.3 | 174.1 | 181.0 | 179.9 | 188.3 | 202.4 |
| 300 | 171.4 | 172.5 | 196.0 | 196.6 | 223.6 | 217.1 | | |
| LONG | -78.29 | -77.79 | -77.34 | -76.90 | -76.51 | -76.14 | -75.80 | -75.50 |
| LAT | 45.53 | 43.59 | 41.39 | 39.07 | 37.49 | 35.80 | 33.85 | 31.95 |
| QUAL | 23 | 23 | 13 | 13 | 13 | 23 | 23 | 23 |

PASS 3527 AT OTTAWA, 63 614

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 171654 | 171729 | 171804 | 171839 | 171914 | 171949 | 172007 | 172042 |
| 1000 | 0.242 | 0.268 | 0.276 | 0.286 | 0.280 | 0.310 | 0.305 | 0.302 |
| 950 | 0.274 | 0.301 | 0.315 | 0.322 | 0.326 | 0.356 | 0.351 | 0.352 |
| 900 | 0.313 | 0.342 | 0.360 | 0.369 | 0.379 | 0.409 | 0.403 | 0.410 |
| 850 | 0.361 | 0.391 | 0.412 | 0.422 | 0.438 | 0.473 | 0.470 | 0.474 |
| 800 | 0.423 | 0.448 | 0.480 | 0.492 | 0.513 | 0.555 | 0.554 | 0.554 |
| 750 | 0.499 | 0.530 | 0.562 | 0.578 | 0.600 | 0.656 | 0.661 | 0.652 |
| 700 | 0.591 | 0.631 | 0.670 | 0.693 | 0.721 | 0.797 | 0.804 | 0.793 |
| 650 | 0.721 | 0.769 | 0.801 | 0.838 | 0.883 | 0.980 | 0.992 | 0.977 |
| 600 | 0.891 | 0.943 | 0.993 | 1.057 | 1.120 | 1.256 | 1.254 | 1.247 |
| 550 | 1.133 | 1.225 | 1.283 | 1.395 | 1.498 | 1.679 | 1.652 | 1.653 |
| 500 | 1.488 | 1.638 | 1.721 | 1.891 | 2.094 | 2.347 | 2.281 | 2.313 |
| 450 | 2.015 | 2.229 | 2.409 | 2.692 | 3.079 | 3.453 | 3.334 | 3.447 |
| 400 | 2.722 | 3.052 | 3.456 | 4.010 | 4.748 | 5.319 | 5.238 | 5.441 |
| 350 | 3.543 | 4.034 | 4.808 | 5.799 | 6.874 | 7.708 | 7.767 | 8.206 |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 384.3 | 400.2 | 373.5 | 401.2 | 335.2 | 366.3 | 352.0 | 327.4 |
| 900 | 362.2 | 375.8 | 362.2 | 365.5 | 330.0 | 345.0 | 340.2 | 327.9 |
| 850 | 338.1 | 356.5 | 345.7 | 346.7 | 321.3 | 325.8 | 316.4 | 326.3 |
| 800 | 310.8 | 337.3 | 323.5 | 321.6 | 307.5 | 305.2 | 291.2 | 307.4 |
| 750 | 291.7 | 305.8 | 300.6 | 294.8 | 293.7 | 283.8 | 268.8 | 282.1 |
| 700 | 274.6 | 274.2 | 281.8 | 270.0 | 269.4 | 258.9 | 248.6 | 257.1 |
| 650 | 252.8 | 251.4 | 263.0 | 242.8 | 238.4 | 225.7 | 230.2 | 226.8 |
| 600 | 227.5 | 229.3 | 219.6 | 200.5 | 195.5 | 188.0 | 204.1 | 191.7 |
| 550 | 194.0 | 180.4 | 186.6 | 177.7 | 162.6 | 165.0 | 170.7 | 166.6 |
| 500 | 180.3 | 172.6 | 160.7 | 152.6 | 139.7 | 141.5 | 146.4 | 140.2 |
| 450 | 164.4 | 160.6 | 145.6 | 135.0 | 120.3 | 122.5 | 120.1 | 116.1 |
| 400 | 177.6 | 167.8 | 141.8 | 122.8 | 118.7 | 118.8 | 110.2 | 108.9 |
| 350 | 225.7 | 195.6 | 166.2 | 165.3 | 200.3 | 184.2 | 180.5 | 175.7 |
| 300 | | | | | | | | |
| LONG | -75.19 | -74.91 | -74.64 | -74.39 | -74.15 | -73.91 | -73.80 | -73.58 |
| LAT | 29.99 | 28.04 | 26.09 | 24.12 | 22.16 | 20.20 | 19.19 | 17.22 |
| QUAL | 23 | 23 | 23 | 23 | 22 | 23 | 23 | 22 |

PASS 3527 AT QUITOE, 63 614

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 172219 | 172254 | 172329 | 172404 | 172439 | 172514 | 172549 | 172624 |
| 1000 | 0.387 | 0.382 | 0.398 | 0.387 | 0.408 | 0.386 | 0.389 | 0.419 |
| 950 | 0.438 | 0.431 | 0.448 | 0.439 | 0.460 | 0.443 | 0.448 | 0.478 |
| 900 | 0.503 | 0.495 | 0.512 | 0.505 | 0.521 | 0.518 | 0.528 | 0.558 |
| 850 | 0.579 | 0.575 | 0.591 | 0.584 | 0.599 | 0.613 | 0.626 | 0.665 |
| 800 | 0.674 | 0.672 | 0.690 | 0.683 | 0.694 | 0.731 | 0.752 | 0.797 |
| 750 | 0.786 | 0.789 | 0.807 | 0.808 | 0.805 | 0.883 | 0.910 | 0.967 |
| 700 | 0.920 | 0.924 | 0.943 | 0.955 | 1.025 | 1.063 | 1.095 | 1.168 |
| 650 | 1.171 | 1.161 | 1.183 | 1.125 | 1.324 | 1.350 | 1.425 | 1.534 |
| 600 | 1.492 | 1.485 | 1.529 | 1.540 | 1.763 | 1.844 | 1.963 | 2.103 |
| 550 | 2.018 | 1.988 | 2.050 | 2.157 | 2.426 | 2.659 | 2.845 | 3.091 |
| 500 | 2.868 | 2.797 | 2.916 | 3.216 | 3.657 | 4.034 | 4.339 | 4.628 |
| 450 | 4.342 | 4.308 | | 5.145 | 5.723 | 6.241 | 6.522 | 6.602 |
| 400 | 6.822 | 6.844 | | 8.073 | 8.499 | 8.464 | | |
| 350 | 9.340 | | | | | | | |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 400.6 | 388.9 | 394.6 | 406.6 | 413.4 | 343.9 | 353.8 | 348.4 |
| 900 | 362.8 | 355.2 | 362.6 | 357.7 | 375.7 | 313.2 | 311.7 | 316.2 |
| 850 | 338.6 | 329.3 | 332.1 | 329.2 | 341.8 | 294.1 | 287.0 | 293.8 |
| 800 | 316.1 | 308.5 | 312.8 | 306.1 | 310.0 | 274.8 | 266.2 | 271.3 |
| 750 | 293.8 | 289.3 | 293.5 | 286.0 | 278.1 | 254.8 | 247.9 | 248.7 |
| 700 | 270.5 | 270.2 | 274.1 | 265.9 | 236.2 | 234.8 | 229.5 | 226.1 |
| 650 | 231.3 | 235.1 | 238.3 | 245.8 | 193.1 | 203.3 | 196.9 | 188.6 |
| 600 | 192.1 | 196.5 | 195.5 | 185.2 | 169.9 | 157.0 | 153.0 | 148.5 |
| 550 | 161.7 | 166.0 | 161.2 | 140.0 | 143.2 | 133.5 | 129.8 | 127.4 |
| 500 | 134.1 | 133.7 | 113.5 | 116.8 | 116.2 | 114.3 | 118.6 | 131.1 |
| 450 | 113.0 | 110.0 | | 104.0 | 111.8 | 125.4 | 152.7 | 197.3 |
| 400 | 129.3 | 121.4 | | 142.9 | 213.3 | 290.2 | | |
| 350 | 308.9 | | | | | | | |
| 300 | | | | | | | | |
| LONG | -73.02 | -72.82 | -72.63 | -72.44 | -72.26 | -72.08 | -71.90 | -71.71 |
| LAT | 11.78 | 9.82 | 7.85 | 5.88 | 3.91 | 1.95 | -0.01 | -1.98 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 3527 AT QUITOE, 63 614

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 172659 | 172734 | 172809 | 172843 | 172918 | 172953 | 173029 | 173103 |
| 1000 | 0.391 | 0.406 | 0.398 | 0.390 | 0.385 | 0.356 | 0.349 | 0.342 |
| 950 | 0.445 | 0.456 | 0.443 | 0.433 | 0.428 | 0.390 | 0.381 | 0.373 |
| 900 | 0.518 | 0.522 | 0.503 | 0.489 | 0.485 | 0.436 | 0.422 | 0.409 |
| 850 | 0.611 | 0.607 | 0.580 | 0.561 | 0.559 | 0.495 | 0.488 | 0.469 |
| 800 | 0.730 | 0.719 | 0.671 | 0.647 | 0.649 | 0.566 | 0.588 | 0.562 |
| 750 | 0.863 | 0.854 | 0.838 | 0.783 | 0.771 | 0.650 | 0.738 | 0.692 |
| 700 | 1.065 | 1.015 | 1.124 | 1.105 | 1.105 | 0.912 | 0.957 | 0.888 |
| 650 | 1.402 | 1.470 | 1.505 | 1.505 | 1.513 | 1.344 | 1.266 | 1.189 |
| 600 | 1.977 | 2.084 | 2.044 | 1.974 | 1.958 | 1.750 | 1.716 | 1.644 |
| 550 | 2.872 | 2.940 | 2.823 | 2.666 | 2.617 | 2.292 | 2.338 | 2.300 |
| 500 | 4.299 | 4.158 | | 3.472 | 3.360 | 3.048 | 3.143 | 3.190 |
| 450 | 5.945 | 5.296 | | | 4.055 | 3.835 | | |
| 400 | | | | | 4.602 | 4.497 | | |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 350.8 | 395.6 | 426.9 | 426.2 | 420.7 | 455.2 | 530.7 | 552.9 |
| 900 | 322.1 | 346.3 | 368.8 | 373.8 | 364.1 | 404.8 | 406.4 | 446.5 |
| 850 | 297.1 | 307.4 | 328.3 | 335.1 | 326.5 | 365.0 | 319.5 | 353.1 |
| 800 | 273.2 | 281.5 | 287.8 | 296.5 | 288.9 | 325.2 | 249.4 | 269.8 |
| 750 | 250.5 | 255.6 | 238.7 | 252.1 | 249.2 | 285.5 | 208.8 | 217.7 |
| 700 | 227.7 | 229.3 | 191.8 | 188.1 | 190.5 | 211.4 | 187.8 | 192.5 |
| 650 | 186.4 | 173.1 | 169.2 | 168.9 | 170.8 | 155.0 | 173.3 | 167.1 |
| 600 | 142.1 | 145.3 | 159.7 | 176.2 | 182.4 | 174.1 | 164.6 | 153.6 |
| 550 | 129.6 | 144.6 | 162.3 | 177.4 | 189.8 | 181.2 | 164.8 | 150.2 |
| 500 | 134.6 | 170.8 | | 232.2 | 236.4 | 203.2 | 178.8 | 164.4 |
| 450 | 226.2 | 309.3 | | | 334.3 | 270.2 | | |
| 400 | | | | | 508.8 | 372.3 | | |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -71.53 | -71.34 | -71.16 | -70.97 | -70.78 | -70.58 | -70.37 | -70.17 |
| LAT | -3.94 | -5.90 | -7.87 | -9.78 | -11.74 | -13.71 | -15.72 | -17.63 |
| QUAL | 23 | 23 | 23 | 23 | 22 | 22 | 23 | 33 |

PASS 3527 AT AGASTA, 63 614

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 173116 | 173326 | 173436 | 173511 | 173546 | 173621 | 173714 | 173816 |
| 1000 | 0.315 | 0.266 | 0.206 | 0.197 | 0.165 | 0.146 | 0.117 | 0.091 |
| 950 | 0.354 | 0.294 | 0.227 | 0.210 | 0.184 | 0.159 | 0.127 | 0.099 |
| 900 | 0.394 | 0.328 | 0.253 | 0.226 | 0.203 | 0.175 | 0.139 | 0.105 |
| 850 | 0.439 | 0.368 | 0.282 | 0.245 | 0.223 | 0.195 | 0.154 | 0.113 |
| 800 | 0.495 | 0.418 | 0.315 | 0.269 | 0.246 | 0.219 | 0.171 | 0.123 |
| 750 | 0.578 | 0.476 | 0.352 | 0.295 | 0.278 | 0.246 | 0.191 | 0.134 |
| 700 | 0.699 | 0.560 | 0.408 | 0.326 | 0.327 | 0.279 | 0.214 | 0.147 |
| 650 | 0.886 | 0.683 | 0.481 | 0.377 | 0.390 | 0.328 | 0.269 | 0.174 |
| 600 | 1.177 | 0.866 | 0.570 | 0.475 | 0.499 | 0.401 | 0.342 | 0.228 |
| 550 | 1.701 | 1.106 | 0.761 | 0.609 | 0.654 | 0.505 | 0.440 | 0.297 |
| 500 | 2.604 | 1.633 | 1.071 | 0.782 | 0.906 | 0.710 | 0.589 | 0.382 |
| 450 | 3.860 | 2.553 | 1.628 | 1.130 | 1.282 | 1.024 | 0.797 | 0.533 |
| 400 | 5.331 | 4.273 | 2.563 | 1.768 | 1.870 | 1.461 | 1.121 | 0.771 |
| 350 | | 6.408 | 4.271 | 2.812 | 2.736 | 2.136 | 1.550 | 1.101 |
| 300 | | 8.453 | 6.578 | 4.544 | 4.361 | 3.221 | 2.218 | 1.815 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 442.0 | 467.6 | 466.4 | 661.6 | 491.1 | 521.3 | 540.2 | 683.5 |
| 900 | 446.5 | 433.7 | 462.0 | 605.1 | 506.5 | 488.9 | 505.5 | 670.3 |
| 850 | 427.9 | 403.3 | 452.2 | 563.3 | 513.0 | 457.8 | 467.3 | 613.1 |
| 800 | 361.9 | 376.1 | 416.9 | 521.5 | 438.4 | 430.5 | 426.0 | 555.9 |
| 750 | 305.1 | 348.8 | 381.6 | 479.7 | 364.7 | 403.3 | 384.7 | 498.7 |
| 700 | 253.4 | 296.4 | 338.4 | 438.0 | 313.6 | 364.3 | 343.4 | 441.5 |
| 650 | 206.4 | 227.4 | 293.8 | 367.4 | 262.5 | 283.9 | 289.9 | 357.3 |
| 600 | 164.6 | 201.3 | 249.3 | 243.0 | 219.8 | 233.2 | 235.8 | 232.9 |
| 550 | 129.5 | 174.9 | 186.3 | 191.2 | 180.0 | 191.9 | 193.2 | 183.5 |
| 500 | 120.2 | 129.5 | 138.3 | 170.8 | 157.8 | 157.2 | 176.1 | 172.8 |
| 450 | 139.1 | 101.8 | 117.7 | 135.9 | 139.6 | 140.6 | 161.0 | 155.9 |
| 400 | 186.4 | 110.2 | 106.0 | 111.5 | 132.7 | 137.3 | 150.4 | 137.1 |
| 350 | | 150.0 | 105.5 | 103.2 | 126.7 | 126.6 | 147.4 | 122.5 |
| 300 | | 197.6 | 125.9 | 114.7 | 83.8 | 130.7 | 139.7 | 99.1 |
| LONG | -70.09 | -69.21 | -68.67 | -68.38 | -68.07 | -67.73 | -67.18 | -66.45 |
| LAT | -18.35 | -25.61 | -29.51 | -31.46 | -33.40 | -35.34 | -38.27 | -41.69 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 22 | 23 |

PASS 3547 AT QUITUE, 63 616

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 53424 | 53457 | 53550 |
| 1000 | 0.120 | 0.108 | 0.095 |
| 950 | 0.128 | 0.123 | 0.106 |
| 900 | 0.136 | 0.131 | 0.114 |
| 850 | 0.143 | 0.138 | 0.122 |
| 800 | 0.151 | 0.147 | 0.134 |
| 750 | 0.161 | 0.163 | 0.150 |
| 700 | 0.179 | 0.185 | 0.173 |
| 650 | 0.205 | 0.217 | 0.212 |
| 600 | 0.250 | 0.268 | 0.265 |
| 550 | 0.318 | 0.340 | 0.343 |
| 500 | 0.421 | 0.440 | 0.468 |
| 450 | 0.589 | 0.589 | 0.651 |
| 400 | 0.835 | 0.802 | 0.915 |
| 350 | 1.190 | 1.123 | |
| 300 | | | |

| HEIGHT | SCALE HEIGHT, KM | | |
|---|---|---|---|
| 950 | | | 726.2 |
| 900 | 919.5 | 870.6 | 721.8 |
| 850 | 978.3 | 875.1 | 617.5 |
| 800 | 832.2 | 653.1 | 491.0 |
| 750 | 632.8 | 513.1 | 397.1 |
| 700 | 462.5 | 380.6 | 312.1 |
| 650 | 300.5 | 275.1 | 259.5 |
| 600 | 243.1 | 227.9 | 213.1 |
| 550 | 199.2 | 206.9 | 178.7 |
| 500 | 166.0 | 184.3 | 160.0 |
| 450 | 147.8 | 166.5 | 151.9 |
| 400 | 142.7 | 162.3 | 141.1 |
| 350 | 152.6 | 155.1 | |
| 300 | | | |

| | | | |
|---|---|---|---|
| LONG | -73.96 | -73.76 | -73.40 |
| LAT | 17.59 | 19.46 | 22.45 |
| QUAL | 33 | 33 | 23 |

PASS 3548 AT OTTAWA, 63 616

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 53811 | 53846 | 53939 | 54106 | 54123 | 54158 | 54418 |
| 1000 | 0.054 | 0.050 | 0.033 | 0.042 | 0.035 | 0.020 | 0.025 |
| 950 | 0.058 | 0.052 | 0.037 | 0.045 | 0.037 | 0.024 | 0.030 |
| 900 | 0.061 | 0.055 | 0.041 | 0.048 | 0.039 | 0.028 | 0.035 |
| 850 | 0.067 | 0.060 | 0.046 | 0.052 | 0.045 | 0.032 | 0.042 |
| 800 | 0.075 | 0.066 | 0.052 | 0.057 | 0.053 | 0.038 | 0.049 |
| 750 | 0.091 | 0.076 | 0.060 | 0.065 | 0.062 | 0.045 | 0.058 |
| 700 | 0.117 | 0.094 | 0.073 | 0.076 | 0.072 | 0.054 | 0.069 |
| 650 | 0.152 | 0.126 | 0.097 | 0.092 | 0.084 | 0.067 | 0.085 |
| 600 | 0.229 | 0.174 | 0.139 | 0.121 | 0.129 | 0.092 | 0.103 |
| 550 | 0.361 | 0.258 | 0.198 | 0.162 | 0.193 | 0.127 | 0.126 |
| 500 | 0.580 | | 0.326 | 0.227 | 0.271 | 0.183 | 0.161 |
| 450 | 0.914 | | 0.557 | 0.354 | 0.365 | 0.287 | 0.207 |
| 400 | | | 0.904 | 0.544 | 0.567 | 0.471 | 0.279 |
| 350 | | | | 0.828 | 0.854 | | 0.367 |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 1143.6 | 1060.1 | 461.6 | 756.1 | 1023.2 | 344.5 | 294.6 |
| 900 | 730.5 | 774.1 | 451.5 | 675.7 | 627.4 | 347.9 | 294.9 |
| 850 | 542.6 | 576.8 | 421.9 | 573.1 | 452.0 | 337.6 | 296.1 |
| 800 | 367.8 | 410.4 | 383.4 | 469.2 | 349.9 | 293.8 | 296.5 |
| 750 | 237.1 | 315.9 | 294.9 | 367.8 | 302.1 | 264.6 | 281.8 |
| 700 | 184.9 | 240.2 | 226.2 | 296.0 | 269.0 | 239.0 | 267.1 |
| 650 | 161.4 | 177.5 | 180.3 | 236.7 | 235.1 | 213.0 | 256.7 |
| 600 | 119.3 | 144.6 | 146.6 | 199.0 | 190.5 | 182.4 | 246.6 |
| 550 | 109.8 | 101.8 | 124.3 | 163.2 | 145.9 | 151.9 | 234.9 |
| 500 | 107.4 | | 101.9 | 133.5 | 142.0 | 129.2 | 210.4 |
| 450 | 111.7 | | 99.6 | 117.6 | 142.0 | 111.6 | 189.0 |
| 400 | | | 111.2 | 119.6 | 115.2 | 104.7 | 177.2 |
| 350 | | | | 126.2 | 135.5 | | 199.9 |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -72.32 | -72.01 | -71.51 | -70.55 | -70.34 | -69.90 | -67.61 |
| LAT | 30.40 | 32.37 | 35.35 | 40.22 | 41.17 | 43.13 | 50.89 |
| QUAL | 23 | 23 | 23 | 13 | 23 | 33 | 22 |

PASS 3548 AT OTTAWA, 63 616

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 54546 | 54603 | 54638 |
| 1000 | 0.020 | 0.028 | 0.031 |
| 950 | 0.027 | 0.040 | 0.038 |
| 900 | 0.036 | 0.051 | 0.046 |
| 850 | 0.046 | 0.063 | 0.057 |
| 800 | 0.058 | 0.077 | 0.070 |
| 750 | 0.075 | 0.098 | 0.088 |
| 700 | 0.098 | 0.125 | 0.109 |
| 650 | 0.127 | 0.156 | 0.134 |
| 600 | 0.162 | 0.194 | 0.173 |
| 550 | 0.222 | 0.260 | 0.233 |
| 500 | 0.309 | 0.339 | 0.308 |
| 450 | 0.432 | 0.458 | 0.439 |
| 400 | 0.626 | 0.635 | 0.642 |
| 350 | 0.906 | 0.884 | 0.917 |
| 300 | | | 1.233 |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | | | 268.7 |
| 900 | | 223.8 | 248.0 |
| 850 | 198.5 | 221.7 | 237.8 |
| 800 | 194.7 | 219.9 | 228.1 |
| 750 | 192.3 | 218.6 | 223.3 |
| 700 | 190.6 | 217.3 | 218.4 |
| 650 | 188.9 | 216.0 | 213.6 |
| 600 | 187.2 | 212.8 | 202.5 |
| 550 | 175.6 | 196.7 | 185.0 |
| 500 | 159.0 | 180.5 | 167.5 |
| 450 | 145.8 | 167.9 | 142.7 |
| 400 | 138.7 | 157.9 | 138.5 |
| 350 | 144.9 | 152.3 | 156.4 |
| 300 | | | 184.3 |
| LONG | -65.65 | -65.22 | -64.19 |
| LAT | 55.72 | 56.64 | 58.54 |
| QUAL | 23 | 23 | 23 |

PASS 3548 AT RESLUT, 63 616

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 54732 | 54748 | 54807 | 54824 | 54841 | 54900 | 54917 | 54934 |
| 1000 | 0.081 | 0.090 | 0.119 | 0.139 | 0.159 | 0.174 | 0.193 | 0.185 |
| 950 | 0.092 | 0.104 | 0.138 | 0.159 | 0.177 | 0.197 | 0.217 | 0.210 |
| 900 | 0.106 | 0.120 | 0.161 | 0.183 | 0.202 | 0.224 | 0.243 | 0.236 |
| 850 | 0.123 | 0.141 | 0.188 | 0.211 | 0.229 | 0.257 | 0.273 | 0.269 |
| 800 | 0.144 | 0.164 | 0.221 | 0.244 | 0.261 | 0.298 | 0.307 | 0.308 |
| 750 | 0.168 | 0.193 | 0.262 | 0.284 | 0.299 | 0.352 | 0.348 | 0.355 |
| 700 | 0.197 | 0.230 | 0.313 | 0.338 | 0.347 | 0.440 | 0.407 | 0.408 |
| 650 | 0.243 | 0.283 | 0.398 | 0.407 | 0.422 | 0.554 | 0.493 | 0.487 |
| 600 | 0.302 | 0.352 | 0.505 | 0.509 | 0.515 | 0.702 | 0.602 | 0.600 |
| 550 | 0.375 | 0.443 | 0.646 | 0.645 | 0.647 | 0.888 | 0.746 | 0.739 |
| 500 | 0.488 | 0.580 | 0.831 | 0.815 | 0.817 | 1.134 | 0.968 | 0.909 |
| 450 | 0.629 | 0.754 | 1.078 | 1.062 | 1.031 | 1.448 | 1.237 | 1.125 |
| 400 | 0.834 | 1.053 | 1.384 | 1.325 | 1.311 | | 1.461 | 1.358 |
| 350 | 1.120 | 1.367 | | | | | | |
| 300 | 1.395 | | | | | | | |
| **HEIGHT** | SCALE HEIGHT, KM | | | | | | | |
| 950 | 371.6 | 351.6 | 327.4 | 360.6 | 428.9 | 389.7 | 435.2 | 396.7 |
| 900 | 349.8 | 339.1 | 321.9 | 353.0 | 397.5 | 371.3 | 431.4 | 393.0 |
| 850 | 327.2 | 323.9 | 309.8 | 342.3 | 384.6 | 346.3 | 419.7 | 379.3 |
| 800 | 310.1 | 311.6 | 292.5 | 326.0 | 362.2 | 306.0 | 385.9 | 364.5 |
| 750 | 294.3 | 288.9 | 271.5 | 309.1 | 333.4 | 270.9 | 344.6 | 335.4 |
| 700 | 278.4 | 263.0 | 251.1 | 279.7 | 304.2 | 250.4 | 311.0 | 306.4 |
| 650 | 257.9 | 243.9 | 234.3 | 245.5 | 273.5 | 229.9 | 283.6 | 287.6 |
| 600 | 236.9 | 226.5 | 217.6 | 230.3 | 242.7 | 218.6 | 256.2 | 274.3 |
| 550 | 216.7 | 209.1 | 205.7 | 220.4 | 230.4 | 212.7 | 233.1 | 261.0 |
| 500 | 204.0 | 191.5 | 198.0 | 212.0 | 223.6 | 201.2 | 221.6 | 256.1 |
| 450 | 191.4 | 176.4 | 199.4 | 219.0 | 231.6 | 607.1 | 256.4 | 275.0 |
| 400 | 193.5 | 216.8 | 906.2 | 291.0 | 277.6 | | 457.4 | 343.4 |
| 350 | 204.5 | 353.2 | | | | | | |
| 300 | 449.4 | | | | | | | |
| LONG | -62.37 | -61.78 | -61.01 | -60.22 | -59.43 | -58.54 | -57.51 | -56.48 |
| LAT | 61.44 | 62.29 | 63.30 | 64.19 | 65.08 | 66.08 | 66.95 | 67.82 |
| QUAL | 22 | 22 | 31 | 33 | 32 | 32 | 32 | 31 |

PASS 3548 AT RESLUT, 63 616

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 54952 | 55010 | 55027 | 55044 | 55102 | 55119 | 55136 | 55154 |
| 1000 | 0.172 | 0.164 | 0.195 | 0.204 | 0.234 | 0.189 | 0.202 | 0.270 |
| 950 | 0.196 | 0.190 | 0.218 | 0.232 | 0.259 | 0.208 | 0.229 | 0.305 |
| 900 | 0.220 | 0.218 | 0.245 | 0.263 | 0.289 | 0.231 | 0.258 | 0.337 |
| 850 | 0.243 | 0.252 | 0.278 | 0.301 | 0.329 | 0.259 | 0.297 | 0.373 |
| 800 | 0.274 | 0.293 | 0.320 | 0.345 | 0.376 | 0.297 | 0.344 | 0.417 |
| 750 | 0.311 | 0.346 | 0.371 | 0.394 | 0.430 | 0.343 | 0.398 | 0.466 |
| 700 | 0.354 | 0.409 | 0.438 | 0.453 | 0.521 | 0.400 | 0.466 | 0.540 |
| 650 | 0.419 | 0.526 | 0.558 | 0.530 | 0.638 | 0.485 | 0.566 | 0.638 |
| 600 | 0.526 | 0.686 | 0.713 | 0.623 | 0.790 | 0.608 | 0.691 | 0.757 |
| 550 | 0.659 | 0.886 | 0.912 | 0.764 | 1.017 | 0.767 | 0.857 | 0.925 |
| 500 | 0.805 | 1.135 | 1.160 | 0.965 | 1.296 | 0.992 | 1.105 | 1.131 |
| 450 | 0.966 | 1.479 | 1.481 | 1.226 | 1.871 | 1.281 | 1.433 | 1.374 |
| 400 | 1.139 | | 1.943 | 1.573 | | 1.701 | 1.937 | 1.838 |
| 350 | 1.330 | | | 1.927 | | 2.302 | 2.581 | 2.345 |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | 347.2 | 429.9 | 385.2 | 476.3 | 491.6 | 394.7 | |
| 900 | 446.3 | 345.7 | 400.7 | 379.9 | 436.1 | 443.1 | 381.8 | 475.2 |
| 850 | 425.1 | 330.2 | 369.1 | 379.3 | 392.4 | 395.7 | 365.6 | 461.3 |
| 800 | 396.4 | 308.5 | 336.2 | 373.5 | 350.8 | 373.5 | 347.5 | 423.8 |
| 750 | 367.7 | 279.7 | 303.2 | 353.2 | 309.1 | 351.3 | 314.2 | 378.9 |
| 700 | 338.9 | 250.9 | 271.7 | 330.5 | 281.3 | 293.9 | 286.1 | 342.7 |
| 650 | 310.8 | 233.9 | 246.7 | 305.7 | 253.5 | 238.7 | 267.4 | 310.1 |
| 600 | 283.5 | 218.3 | 221.8 | 280.9 | 226.4 | 227.8 | 248.8 | 277.5 |
| 550 | 256.3 | 203.6 | 208.8 | 255.4 | 202.4 | 216.9 | 228.8 | 259.2 |
| 500 | 267.4 | 193.1 | 204.7 | 229.5 | 178.3 | 204.2 | 205.5 | 241.2 |
| 450 | 289.6 | 309.3 | 203.6 | 216.4 | 78.9 | 190.8 | 183.7 | 223.2 |
| 400 | 305.0 | | 223.2 | 225.7 | | 173.1 | 169.7 | 212.9 |
| 350 | 886.3 | | | 290.8 | | 369.4 | 341.9 | 274.9 |
| 300 | | | | | | | | |
| LONG | -55.39 | -54.08 | -52.70 | -51.31 | -49.78 | -47.87 | -45.95 | -43.93 |
| LAT | 68.74 | 69.64 | 70.48 | 71.31 | 72.19 | 72.98 | 73.76 | 74.59 |
| QUAL | 31 | 32 | 32 | 32 | 31 | 32 | 31 | 31 |

PASS 3548 AT RESLUT, 63 616

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 55213 | 55230 | 55247 | 55304 | 55322 | 55339 | 55357 | 55415 |
| 1000 | 0.267 | 0.273 | 0.133 | 0.265 | 0.235 | 0.209 | 0.186 | 0.238 |
| 950 | 0.298 | 0.300 | 0.150 | 0.298 | 0.263 | 0.242 | 0.211 | 0.269 |
| 900 | 0.337 | 0.337 | 0.175 | 0.340 | 0.298 | 0.277 | 0.239 | 0.306 |
| 850 | 0.364 | 0.385 | 0.207 | 0.393 | 0.341 | 0.317 | 0.274 | 0.353 |
| 800 | 0.439 | 0.437 | 0.241 | 0.457 | 0.392 | 0.370 | 0.317 | 0.406 |
| 750 | 0.512 | 0.509 | 0.285 | 0.535 | 0.456 | 0.434 | 0.369 | 0.471 |
| 700 | 0.602 | 0.606 | 0.340 | 0.660 | 0.548 | 0.515 | 0.432 | 0.567 |
| 650 | 0.708 | 0.725 | 0.416 | 0.820 | 0.663 | 0.610 | 0.534 | 0.689 |
| 600 | 0.918 | 0.898 | 0.534 | 1.028 | 0.814 | 0.721 | 0.662 | 0.847 |
| 550 | 1.255 | 1.145 | 0.683 | 1.295 | 1.018 | 0.918 | 0.822 | 1.087 |
| 500 | 1.684 | 1.451 | 0.872 | 1.638 | 1.273 | 1.164 | 1.022 | 1.387 |
| 450 | 2.221 | 1.868 | 1.106 | 2.080 | 1.617 | 1.467 | 1.257 | 1.795 |
| 400 | 2.818 | 2.309 | 1.424 | 2.483 | 2.016 | 1.826 | 1.589 | 2.123 |
| 350 | | | 1.825 | | | 2.184 | 2.000 | |
| 300 | | | | | | | 2.449 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 427.2 | 464.2 | 358.1 | 394.3 | 412.7 | 352.7 | 392.4 | 384.8 |
| 900 | 402.0 | 422.6 | 333.6 | 364.2 | 388.8 | 350.2 | 374.2 | 375.6 |
| 850 | 368.8 | 388.8 | 314.4 | 342.6 | 366.5 | 341.6 | 355.0 | 367.2 |
| 800 | 334.1 | 343.0 | 304.8 | 308.3 | 331.0 | 321.1 | 332.3 | 332.6 |
| 750 | 308.6 | 313.3 | 283.9 | 276.0 | 301.8 | 301.7 | 305.3 | 296.1 |
| 700 | 283.2 | 289.7 | 258.4 | 258.7 | 283.1 | 287.5 | 279.4 | 276.7 |
| 650 | 257.8 | 266.1 | 237.9 | 241.4 | 264.4 | 273.4 | 263.4 | 257.3 |
| 600 | 225.8 | 245.3 | 228.1 | 228.3 | 247.4 | 259.3 | 247.5 | 238.1 |
| 550 | 189.9 | 227.3 | 218.3 | 220.4 | 232.7 | 242.9 | 236.3 | 220.0 |
| 500 | 176.9 | 211.3 | 210.6 | 213.7 | 219.7 | 226.5 | 233.0 | 207.3 |
| 450 | 209.5 | 210.7 | 204.8 | 263.6 | 211.3 | 228.0 | 229.7 | 226.5 |
| 400 | 532.7 | 544.0 | 210.7 | 466.1 | 672.9 | 240.2 | 229.9 | 1036.5 |
| 350 | | | 533.6 | | | 1161.0 | 235.6 | |
| 300 | | | | | | | 390.5 | |
| LONG | -41.17 | -38.45 | -35.74 | -32.75 | -28.67 | -24.82 | -20.74 | -15.53 |
| LAT | 75.40 | 76.10 | 76.80 | 77.46 | 78.04 | 78.59 | 79.17 | 79.54 |
| QUAL | 32 | 31 | 32 | 32 | 31 | 31 | 32 | 31 |

PASS 3548 AT RESLUT, 63 616

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 55432 | 55449 | 55507 | 55538 | 55541 | 55558 | 55616 | 55633 |
| 1000 | 0.263 | 0.222 | 0.209 | | 0.214 | 0.169 | 0.190 | 0.241 |
| 950 | 0.293 | 0.246 | 0.236 | | 0.239 | 0.192 | 0.220 | 0.265 |
| 900 | 0.328 | 0.276 | 0.266 | | 0.271 | 0.215 | 0.254 | 0.299 |
| 850 | 0.369 | 0.316 | 0.304 | | 0.312 | 0.245 | 0.295 | 0.342 |
| 800 | 0.417 | 0.361 | 0.348 | | 0.361 | 0.284 | 0.345 | 0.393 |
| 750 | 0.479 | 0.410 | 0.404 | | 0.420 | 0.330 | 0.405 | 0.449 |
| 700 | 0.553 | 0.482 | 0.469 | | 0.488 | 0.388 | 0.480 | 0.530 |
| 650 | 0.654 | 0.580 | 0.545 | | 0.569 | 0.458 | 0.573 | 0.635 |
| 600 | 0.834 | 0.700 | 0.670 | | 0.739 | 0.537 | 0.727 | 0.763 |
| 550 | 1.064 | 0.843 | 0.858 | | 0.925 | 0.687 | 0.923 | 0.961 |
| 500 | 1.354 | 1.072 | 1.091 | | 1.199 | 0.890 | 1.193 | 1.213 |
| 450 | 1.723 | 1.373 | 1.453 | | 1.547 | 1.138 | 1.537 | 1.559 |
| 400 | 2.242 | 1.759 | 1.943 | | 2.030 | 1.431 | 1.998 | 1.995 |
| 350 | 2.653 | 2.269 | 2.677 | | 2.481 | 1.792 | 2.436 | 2.473 |
| 300 | | 2.808 | | | | 2.247 | | 2.655 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 443.8 | 446.8 | 397.3 | | 415.3 | 395.3 | 336.6 | 463.8 |
| 900 | 431.1 | 418.9 | 390.7 | | 377.8 | 384.3 | 334.3 | 412.4 |
| 850 | 405.8 | 391.1 | 370.0 | | 357.7 | 365.5 | 326.2 | 388.4 |
| 800 | 378.2 | 360.5 | 349.3 | | 336.9 | 344.9 | 315.0 | 358.4 |
| 750 | 343.1 | 329.3 | 327.7 | | 313.7 | 324.2 | 297.5 | 323.4 |
| 700 | 308.0 | 306.9 | 305.9 | | 290.6 | 303.0 | 274.1 | 299.5 |
| 650 | 275.6 | 288.7 | 284.2 | | 266.3 | 281.9 | 251.3 | 277.5 |
| 600 | 249.9 | 270.5 | 258.2 | | 241.0 | 260.7 | 231.5 | 255.4 |
| 550 | 224.3 | 252.3 | 229.1 | | 215.8 | 242.1 | 211.8 | 234.3 |
| 500 | 211.5 | 233.7 | 200.1 | | 203.3 | 223.9 | 203.3 | 213.2 |
| 450 | 207.9 | 215.1 | 180.8 | | 197.0 | 214.1 | 198.0 | 210.1 |
| 400 | 234.5 | 208.7 | 178.8 | | 222.4 | 219.3 | 223.6 | 225.2 |
| 350 | 567.4 | 217.5 | 282.8 | | 560.9 | 225.5 | 627.4 | 503.7 |
| 300 | | 343.5 | | | | 281.3 | | 835.6 |
| LONG | -10.41 | -5.28 | 0.39 | | 11.82 | 17.54 | 22.98 | 28.05 |
| LAT | 79.66 | 80.17 | 80.37 | | 80.36 | 80.35 | 80.04 | 79.72 |
| QUAL | 32 | 32 | 33 | | 32 | 32 | 31 | 31 |

PASS 3581 AT RESLUT, 63 618

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 155833 | 155851 | 155909 | 155927 | 155944 | 160001 | 160019 | 160036 |
| 1000 | 0.129 | 0.139 | 0.141 | 0.117 | 0.138 | 0.135 | 0.144 | 0.163 |
| 950 | 0.144 | 0.157 | 0.155 | 0.131 | 0.157 | 0.153 | 0.166 | 0.182 |
| 900 | 0.160 | 0.177 | 0.175 | 0.151 | 0.179 | 0.175 | 0.191 | 0.205 |
| 850 | 0.179 | 0.200 | 0.199 | 0.176 | 0.205 | 0.199 | 0.219 | 0.233 |
| 800 | 0.202 | 0.229 | 0.229 | 0.206 | 0.236 | 0.229 | 0.253 | 0.266 |
| 750 | 0.229 | 0.263 | 0.265 | 0.240 | 0.272 | 0.264 | 0.295 | 0.304 |
| 700 | 0.274 | 0.301 | 0.305 | 0.281 | 0.313 | 0.303 | 0.342 | 0.357 |
| 650 | 0.342 | 0.358 | 0.360 | 0.361 | 0.389 | 0.372 | 0.416 | 0.445 |
| 600 | 0.427 | 0.447 | 0.465 | 0.462 | 0.484 | 0.466 | 0.537 | 0.555 |
| 550 | 0.538 | 0.557 | 0.595 | 0.605 | 0.599 | 0.580 | 0.687 | 0.686 |
| 500 | 0.689 | 0.732 | 0.783 | 0.809 | 0.766 | 0.718 | 0.904 | 0.875 |
| 450 | 0.870 | 0.974 | 1.040 | 1.049 | 0.973 | 0.899 | 1.154 | 1.106 |
| 400 | 1.116 | 1.294 | 1.378 | 1.305 | 1.204 | 1.112 | 1.334 | 1.361 |
| 350 | 1.441 | 1.632 | 1.641 | 1.454 | 1.503 | 1.343 | 1.395 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 452.2 | 424.2 | 453.2 | 393.0 | 377.5 | 378.2 | 355.4 | 444.1 |
| 900 | 438.7 | 403.5 | 413.2 | 360.2 | 369.1 | 370.2 | 350.1 | 410.3 |
| 850 | 413.0 | 382.7 | 373.2 | 328.5 | 357.9 | 359.6 | 342.4 | 378.4 |
| 800 | 372.4 | 360.9 | 348.3 | 307.7 | 336.6 | 339.1 | 323.8 | 349.8 |
| 750 | 331.7 | 339.0 | 325.5 | 286.9 | 315.3 | 318.6 | 304.8 | 321.1 |
| 700 | 298.2 | 317.2 | 302.7 | 265.7 | 294.0 | 298.1 | 285.8 | 295.4 |
| 650 | 269.1 | 289.0 | 277.0 | 236.3 | 272.3 | 281.3 | 261.3 | 274.5 |
| 600 | 240.1 | 252.6 | 241.8 | 206.9 | 250.6 | 265.6 | 229.7 | 253.5 |
| 550 | 221.3 | 216.2 | 206.6 | 194.9 | 228.9 | 249.9 | 198.2 | 232.6 |
| 500 | 216.6 | 196.5 | 189.9 | 199.5 | 229.6 | 238.8 | 230.4 | 229.1 |
| 450 | 211.9 | 183.0 | 184.5 | 222.7 | 233.2 | 240.8 | 280.8 | 227.4 |
| 400 | 205.3 | 274.9 | 220.6 | 330.4 | 224.7 | 265.7 | 640.7 | 635.0 |
| 350 | 307.4 | 488.6 | 1951.8 | 1438.3 | 1238.7 | 487.6 | 3219.5 | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -133.58 | -127.85 | -122.73 | -118.23 | -113.97 | -109.79 | -106.58 | -103.56 |
| LAT | 80.06 | 79.83 | 79.45 | 78.94 | 78.45 | 77.95 | 77.25 | 76.59 |
| QUAL | 21 | 22 | 22 | 21 | 21 | 21 | 21 | 21 |

PASS 3581 AT RESLUT, 63 618

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 160054 | 160112 | 160129 | 160146 | 160204 | 160222 | 160239 | 160256 |
| 1000 | 0.165 | 0.177 | 0.197 | 0.207 | 0.154 | 0.138 | 0.187 | 0.189 |
| 950 | 0.183 | 0.199 | 0.213 | 0.226 | 0.178 | 0.158 | 0.205 | 0.204 |
| 900 | 0.207 | 0.223 | 0.235 | 0.248 | 0.199 | 0.179 | 0.226 | 0.225 |
| 850 | 0.235 | 0.253 | 0.262 | 0.274 | 0.221 | 0.205 | 0.253 | 0.249 |
| 800 | 0.268 | 0.292 | 0.296 | 0.304 | 0.246 | 0.235 | 0.283 | 0.277 |
| 750 | 0.305 | 0.338 | 0.335 | 0.352 | 0.281 | 0.269 | 0.319 | 0.310 |
| 700 | 0.361 | 0.392 | 0.380 | 0.413 | 0.328 | 0.323 | 0.359 | 0.360 |
| 650 | 0.440 | 0.479 | 0.439 | 0.487 | 0.385 | 0.393 | 0.429 | 0.420 |
| 600 | 0.537 | 0.630 | 0.564 | 0.591 | 0.452 | 0.481 | 0.524 | 0.499 |
| 550 | 0.652 | 0.817 | 0.719 | 0.723 | 0.552 | 0.620 | 0.639 | 0.600 |
| 500 | 0.826 | 1.043 | 0.901 | 0.880 | 0.675 | 0.793 | 0.780 | 0.720 |
| 450 | 1.037 | 1.277 | 1.104 | 1.084 | 0.816 | 0.998 | 0.949 | 0.860 |
| 400 | 1.217 | 1.433 | 1.318 | 1.324 | 0.973 | 1.170 | 1.102 | 1.036 |
| 350 | 1.355 | | 1.479 | 1.481 | 1.129 | 1.239 | 1.206 | 1.251 |
| 300 | | | | | 1.253 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 442.8 | 422.4 | 563.7 | 555.3 | | 387.0 | 522.3 | 584.4 |
| 900 | 413.3 | 390.8 | 489.2 | 506.2 | 443.7 | 375.7 | 476.3 | 502.8 |
| 850 | 384.2 | 362.5 | 432.3 | 455.1 | 430.7 | 358.8 | 438.7 | 468.9 |
| 800 | 355.6 | 338.9 | 402.4 | 403.9 | 393.4 | 337.2 | 410.1 | 435.0 |
| 750 | 327.1 | 315.3 | 372.6 | 367.1 | 364.3 | 315.6 | 381.5 | 399.7 |
| 700 | 304.9 | 291.8 | 342.7 | 330.8 | 341.2 | 287.6 | 353.0 | 357.5 |
| 650 | 286.0 | 264.3 | 312.5 | 294.5 | 318.1 | 258.0 | 325.3 | 315.3 |
| 600 | 267.2 | 231.5 | 280.3 | 278.0 | 295.1 | 231.4 | 297.8 | 296.4 |
| 550 | 248.3 | 206.5 | 248.1 | 267.6 | 286.3 | 229.0 | 270.3 | 293.0 |
| 500 | 261.5 | 249.8 | 243.9 | 257.1 | 278.7 | 226.6 | 279.1 | 289.5 |
| 450 | 276.3 | 361.9 | 271.3 | 269.4 | 287.6 | 322.4 | 303.3 | 284.2 |
| 400 | 377.6 | 778.0 | 387.1 | 356.3 | 328.9 | 606.6 | 408.9 | 264.3 |
| 350 | 1248.5 | | 1010.6 | 1373.0 | 441.2 | 973.8 | 1781.1 | 1516.3 |
| 300 | | | | | 678.3 | | | |
| LONG | -100.35 | -97.78 | -95.65 | -93.52 | -91.41 | -89.80 | -88.27 | -86.75 |
| LAT | 75.89 | 75.12 | 74.36 | 73.61 | 72.79 | 71.91 | 71.09 | 70.26 |
| QUAL | 21 | 21 | 21 | 21 | 31 | 31 | 31 | 31 |

PASS 3581 AT RESLUT, 63 618

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 160315 | 160332 | 160349 | 160407 | 160424 | 160442 | 160458 | 160517 |
| 1000 | 0.229 | 0.209 | 0.191 | 0.212 | 0.242 | 0.246 | 0.234 | 0.206 |
| 950 | 0.247 | 0.222 | 0.204 | 0.226 | 0.264 | 0.268 | 0.254 | 0.228 |
| 900 | 0.268 | 0.240 | 0.218 | 0.245 | 0.290 | 0.292 | 0.278 | 0.253 |
| 850 | 0.294 | 0.265 | 0.237 | 0.268 | 0.320 | 0.321 | 0.307 | 0.282 |
| 800 | 0.325 | 0.295 | 0.261 | 0.295 | 0.355 | 0.354 | 0.341 | 0.318 |
| 750 | 0.360 | 0.335 | 0.292 | 0.325 | 0.397 | 0.394 | 0.378 | 0.360 |
| 700 | 0.437 | 0.384 | 0.327 | 0.361 | 0.450 | 0.441 | 0.421 | 0.412 |
| 650 | 0.539 | 0.449 | 0.373 | 0.403 | 0.515 | 0.500 | 0.475 | 0.479 |
| 600 | 0.665 | 0.532 | 0.435 | 0.452 | 0.600 | 0.573 | 0.542 | 0.571 |
| 550 | 0.829 | 0.642 | 0.516 | 0.513 | 0.717 | 0.670 | 0.630 | 0.699 |
| 500 | 1.028 | 0.779 | 0.616 | 0.602 | 0.875 | 0.809 | 0.760 | 0.906 |
| 450 | 1.312 | 0.938 | 0.734 | 0.726 | 1.095 | 1.000 | 0.933 | 1.243 |
| 400 | | 1.096 | 0.862 | 0.880 | | 1.266 | 1.253 | |
| 350 | | | | 1.034 | | | 1.794 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 607.6 | 713.9 | 720.6 | 688.3 | 547.4 | 590.4 | 575.0 | 481.8 |
| 900 | 547.9 | 582.2 | 653.8 | 601.1 | 522.4 | 551.9 | 527.7 | 461.9 |
| 850 | 492.6 | 489.0 | 563.3 | 541.8 | 488.5 | 523.1 | 504.7 | 440.5 |
| 800 | 437.3 | 431.6 | 507.7 | 515.3 | 457.6 | 494.9 | 484.9 | 416.6 |
| 750 | 382.1 | 392.6 | 457.6 | 495.9 | 428.0 | 457.9 | 470.8 | 383.4 |
| 700 | 337.1 | 339.4 | 408.6 | 472.3 | 387.6 | 418.6 | 436.3 | 345.3 |
| 650 | 292.8 | 305.1 | 348.5 | 447.4 | 345.9 | 384.0 | 398.6 | 308.9 |
| 600 | 248.5 | 286.0 | 318.2 | 420.9 | 305.2 | 344.7 | 365.4 | 269.4 |
| 550 | 203.8 | 269.0 | 298.1 | 345.0 | 272.8 | 294.2 | 286.7 | 226.9 |
| 500 | 159.1 | 267.3 | 296.5 | 302.4 | 244.7 | 259.8 | 254.3 | 184.1 |
| 450 | 14196.0 | 297.6 | 302.6 | 266.8 | 210.5 | 231.5 | 221.9 | 157.9 |
| 400 | | 354.3 | 326.6 | 285.5 | | 251.5 | 167.4 | |
| 350 | | | | 422.3 | | | 139.0 | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -85.40 | -84.27 | -83.15 | -82.07 | -81.21 | -80.31 | -79.50 | -78.73 |
| LAT | 69.31 | 68.45 | 67.59 | 66.67 | 65.78 | 64.85 | 64.01 | 63.01 |
| QUAL | 31 | 32 | 32 | 31 | 33 | 32 | 32 | 33 |

PASS 3581 AT RESLUT, 63 618

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 160535 | 160552 | 160609 | 160627 | 160644 | 160701 | 160720 | 160737 |
| 1000 | 0.307 | 0.263 | 0.216 | 0.246 | 0.211 | 0.226 | 0.233 | 0.220 |
| 950 | 0.348 | 0.304 | 0.249 | 0.279 | 0.242 | 0.257 | 0.267 | 0.251 |
| 900 | 0.389 | 0.350 | 0.284 | 0.318 | 0.286 | 0.293 | 0.313 | 0.293 |
| 850 | 0.434 | 0.403 | 0.325 | 0.364 | 0.337 | 0.337 | 0.366 | 0.341 |
| 800 | 0.485 | 0.468 | 0.375 | 0.426 | 0.396 | 0.391 | 0.437 | 0.395 |
| 750 | 0.549 | 0.549 | 0.441 | 0.509 | 0.481 | 0.458 | 0.532 | 0.474 |
| 700 | 0.629 | 0.654 | 0.534 | 0.617 | 0.590 | 0.538 | 0.663 | 0.571 |
| 650 | 0.731 | 0.787 | 0.659 | 0.763 | 0.727 | 0.649 | 0.837 | 0.709 |
| 600 | 0.860 | 0.969 | 0.822 | 0.946 | 0.912 | 0.794 | 1.082 | 0.887 |
| 550 | 1.039 | 1.205 | 1.042 | 1.208 | 1.157 | 0.998 | 1.413 | 1.159 |
| 500 | 1.300 | 1.500 | 1.341 | 1.547 | 1.499 | 1.281 | 1.851 | 1.525 |
| 450 | 1.671 | 1.862 | 1.721 | 1.977 | 1.916 | 1.657 | 2.370 | 2.003 |
| 400 | 2.205 | 2.297 | 2.194 | 2.484 | 2.315 | 2.142 | | 2.539 |
| 350 | | | 2.752 | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 426.2 | 351.9 | 361.6 | 399.3 | 343.9 | 380.4 | 348.6 | 361.9 |
| 900 | 450.9 | 353.7 | 364.5 | 377.1 | 318.0 | 364.8 | 316.1 | 331.7 |
| 850 | 441.2 | 339.0 | 351.0 | 335.9 | 297.0 | 349.5 | 295.8 | 318.2 |
| 800 | 420.6 | 318.2 | 327.5 | 297.8 | 277.1 | 329.7 | 272.0 | 304.7 |
| 750 | 391.6 | 299.5 | 283.0 | 275.4 | 263.8 | 308.5 | 246.1 | 279.7 |
| 700 | 351.6 | 280.9 | 260.0 | 255.0 | 250.9 | 286.5 | 226.0 | 254.3 |
| 650 | 323.4 | 262.4 | 245.1 | 239.0 | 237.0 | 261.8 | 208.3 | 231.6 |
| 600 | 302.0 | 236.4 | 224.3 | 223.6 | 220.6 | 237.2 | 193.9 | 209.5 |
| 550 | 240.1 | 229.3 | 205.2 | 211.8 | 206.7 | 213.2 | 188.0 | 193.4 |
| 500 | 214.1 | 231.5 | 201.8 | 205.3 | 200.2 | 202.7 | 192.8 | 185.5 |
| 450 | 193.5 | 238.1 | 203.5 | 213.4 | 231.1 | 198.6 | 302.2 | 196.0 |
| 400 | 196.0 | 259.5 | 214.9 | 233.7 | 439.3 | 206.8 | | 264.4 |
| 350 | | | 228.7 | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -78.02 | -77.35 | -76.76 | -76.19 | -75.66 | -75.13 | -74.65 | -74.21 |
| LAT | 62.05 | 61.15 | 60.25 | 59.28 | 58.36 | 57.45 | 56.41 | 55.49 |
| QUAL | 33 | 33 | 33 | 33 | 31 | 33 | 32 | 32 |

PASS 3581 AT OTTAWA, 63 618

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 161132 | 161207 | 161242 | 161317 | 161352 | 161427 | 161502 |
| 1000 | 0.168 | 0.189 | 0.186 | 0.190 | 0.201 | 0.198 | 0.194 |
| 950 | 0.190 | 0.208 | 0.211 | 0.213 | 0.221 | 0.222 | 0.220 |
| 900 | 0.216 | 0.233 | 0.237 | 0.239 | 0.247 | 0.250 | 0.249 |
| 850 | 0.249 | 0.268 | 0.270 | 0.273 | 0.282 | 0.285 | 0.284 |
| 800 | 0.292 | 0.315 | 0.311 | 0.315 | 0.328 | 0.330 | 0.330 |
| 750 | 0.343 | 0.372 | 0.361 | 0.366 | 0.383 | 0.385 | 0.387 |
| 700 | 0.406 | 0.438 | 0.428 | 0.439 | 0.449 | 0.453 | 0.458 |
| 650 | 0.480 | 0.515 | 0.517 | 0.527 | 0.546 | 0.550 | 0.559 |
| 600 | 0.596 | 0.633 | 0.632 | 0.636 | 0.668 | 0.675 | 0.690 |
| 550 | 0.747 | 0.789 | 0.798 | 0.801 | 0.833 | 0.842 | 0.870 |
| 500 | 0.958 | 0.999 | 1.009 | 1.015 | 1.046 | 1.061 | 1.108 |
| 450 | 1.242 | 1.287 | 1.299 | 1.302 | 1.340 | 1.366 | 1.428 |
| 400 | 1.603 | 1.645 | 1.673 | 1.670 | 1.699 | 1.747 | 1.832 |
| 350 | 2.038 | 2.071 | 2.142 | 2.109 | 2.121 | 2.220 | 2.339 |
| 300 | 2.403 | 2.447 | 2.585 | 2.498 | 2.516 | 2.747 | 2.940 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 395.1 | 454.8 | 415.1 | 418.8 | 461.3 | 422.0 | 396.3 |
| 900 | 356.1 | 391.2 | 388.5 | 391.5 | 409.0 | 392.8 | 377.1 |
| 850 | 336.0 | 358.9 | 364.1 | 364.4 | 375.6 | 367.2 | 358.0 |
| 800 | 321.2 | 337.1 | 342.2 | 337.3 | 346.6 | 347.2 | 338.3 |
| 750 | 305.1 | 315.3 | 320.3 | 310.8 | 314.0 | 321.4 | 318.6 |
| 700 | 286.3 | 296.5 | 293.7 | 291.3 | 280.0 | 271.6 | 260.9 |
| 650 | 267.5 | 277.6 | 263.5 | 271.9 | 262.6 | 258.9 | 248.6 |
| 600 | 241.8 | 245.5 | 238.1 | 251.7 | 245.3 | 246.2 | 236.4 |
| 550 | 216.1 | 221.4 | 224.3 | 227.3 | 227.9 | 227.1 | 219.0 |
| 500 | 197.4 | 207.1 | 211.2 | 209.1 | 214.4 | 209.4 | 204.6 |
| 450 | 198.0 | 204.6 | 202.5 | 202.1 | 211.3 | 204.0 | 200.9 |
| 400 | 203.6 | 211.5 | 200.5 | 207.2 | 218.8 | 206.3 | 202.5 |
| 350 | 237.2 | 249.9 | 222.8 | 235.3 | 254.8 | 217.2 | 212.9 |
| 300 | 596.9 | 636.7 | 435.9 | 482.2 | 379.6 | 330.3 | 229.9 |
| LONG | -69.94 | -69.49 | -69.09 | -68.71 | -68.35 | -68.02 | -67.70 |
| LAT | 42.57 | 40.63 | 38.69 | 36.75 | 34.80 | 32.85 | 30.89 |
| QUAL | 11 | 11 | 12 | 21 | 22 | 23 | 23 |

PASS 3581 AT OTTAWA, 63 618

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 161557 | 161602 | 161647 | 161722 | 161740 |
| 1000 | 0.211 | 0.225 | 0.248 | 0.271 | 0.284 |
| 950 | 0.238 | 0.255 | 0.279 | 0.304 | 0.320 |
| 900 | 0.270 | 0.288 | 0.318 | 0.344 | 0.364 |
| 850 | 0.308 | 0.329 | 0.364 | 0.392 | 0.415 |
| 800 | 0.357 | 0.383 | 0.425 | 0.452 | 0.485 |
| 750 | 0.415 | 0.448 | 0.500 | 0.536 | 0.580 |
| 700 | 0.491 | 0.538 | 0.600 | 0.654 | 0.703 |
| 650 | 0.601 | 0.666 | 0.740 | 0.808 | 0.859 |
| 600 | 0.748 | 0.838 | 0.931 | 1.037 | 1.097 |
| 550 | 0.948 | 1.069 | 1.197 | 1.356 | 1.437 |
| 500 | 1.213 | 1.427 | 1.584 | 1.791 | 1.910 |
| 450 | 1.603 | 1.912 | 2.149 | 2.410 | 2.605 |
| 400 | 2.105 | 2.546 | 2.916 | 3.342 | 3.595 |
| 350 | 2.750 | 3.367 | 3.927 | 4.536 | 4.929 |
| 300 | 3.549 | 4.263 | 5.043 | 5.925 | |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | 403.7 | 409.9 | 392.4 | 399.2 | 396.4 |
| 900 | 379.9 | 378.9 | 372.3 | 385.1 | 376.6 |
| 850 | 360.3 | 354.4 | 352.1 | 371.1 | 356.0 |
| 800 | 347.5 | 335.1 | 327.4 | 326.5 | 297.1 |
| 750 | 334.8 | 301.6 | 288.7 | 269.5 | 271.6 |
| 700 | 262.0 | 250.9 | 255.4 | 249.2 | 256.6 |
| 650 | 246.0 | 234.6 | 237.6 | 227.5 | 237.6 |
| 600 | 229.5 | 214.4 | 213.8 | 200.2 | 196.3 |
| 550 | 208.7 | 191.2 | 190.5 | 186.5 | 184.8 |
| 500 | 195.1 | 175.0 | 173.9 | 174.5 | 167.1 |
| 450 | 186.2 | 174.2 | 164.1 | 162.1 | 159.9 |
| 400 | 185.9 | 176.9 | 165.9 | 156.9 | 156.2 |
| 350 | 191.7 | 194.4 | 178.9 | 174.2 | 167.5 |
| 300 | 209.0 | 239.8 | 256.4 | 216.0 | |
| LONG | -67.42 | -67.22 | -66.89 | -66.64 | -66.52 |
| LAT | 28.93 | 27.54 | 25.02 | 23.06 | 22.05 |
| QUAL | 22 | 23 | 32 | 33 | 33 |

PASS 3581 AT QUITOE, 63 618

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 162135 | 162210 | 162245 | 162354 | 162430 | 162502 | 162539 |
| 1000 | 0.387 | 0.401 | 0.407 | 0.374 | 0.394 | 0.379 | 0.369 |
| 950 | 0.444 | 0.446 | 0.442 | 0.409 | 0.432 | 0.417 | 0.404 |
| 900 | 0.505 | 0.497 | 0.483 | 0.460 | 0.482 | 0.467 | 0.451 |
| 850 | 0.578 | 0.561 | 0.541 | 0.535 | 0.550 | 0.532 | 0.515 |
| 800 | 0.665 | 0.639 | 0.622 | 0.623 | 0.636 | 0.614 | 0.606 |
| 750 | 0.769 | 0.738 | 0.737 | 0.749 | 0.754 | 0.737 | 0.734 |
| 700 | 0.905 | 0.870 | 0.888 | 0.923 | 0.921 | 0.913 | 0.914 |
| 650 | 1.067 | 1.058 | 1.128 | 1.182 | 1.162 | 1.167 | 1.189 |
| 600 | 1.348 | 1.350 | 1.477 | 1.589 | 1.555 | 1.580 | 1.618 |
| 550 | 1.748 | 1.815 | 2.021 | 2.236 | 2.188 | 2.214 | 2.300 |
| 500 | 2.370 | 2.558 | 3.024 | 3.283 | 3.216 | 3.293 | 3.421 |
| 450 | 3.354 | 3.576 | | 4.722 | 4.719 | 4.665 | 4.984 |
| 400 | | | | | | 5.996 | 6.268 |
| 350 | | | | | | | |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 380.9 | 457.2 | 581.5 | 487.3 | 486.6 | 479.0 | 484.7 |
| 900 | 376.2 | 434.5 | 491.7 | 398.4 | 423.3 | 418.8 | 419.6 |
| 850 | 361.8 | 396.7 | 409.7 | 332.1 | 369.9 | 362.4 | 362.5 |
| 800 | 343.3 | 360.7 | 331.9 | 294.8 | 319.0 | 307.9 | 289.7 |
| 750 | 322.3 | 327.1 | 288.0 | 261.2 | 275.2 | 262.8 | 244.3 |
| 700 | 290.2 | 285.1 | 245.5 | 229.0 | 233.6 | 222.8 | 211.9 |
| 650 | 255.6 | 233.0 | 206.3 | 188.8 | 194.7 | 188.8 | 182.2 |
| 600 | 217.6 | 194.3 | 177.5 | 163.1 | 167.6 | 165.6 | 157.2 |
| 550 | 183.9 | 160.8 | 140.0 | 136.8 | 135.5 | 132.3 | 133.2 |
| 500 | 156.0 | 144.7 | 128.7 | 130.6 | 130.8 | 132.1 | 123.1 |
| 450 | 157.8 | 169.4 | | 156.4 | 150.5 | 166.2 | 167.1 |
| 400 | | | | | | 324.6 | 364.8 |
| 350 | | | | | | | |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -65.11 | -64.93 | -64.74 | -64.38 | -64.19 | -64.02 | -63.83 |
| LAT | 8.67 | 6.91 | 4.93 | 1.06 | -0.95 | -2.74 | -4.82 |
| QUAL | 33 | 33 | 33 | 33 | 32 | 31 | 31 |

PASS 3581 AT QUITOE, 63 618

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 162614 | 162649 | 162724 | 162759 | 162834 | 162919 | 162944 | 163019 |
| 1000 | 0.353 | 0.338 | 0.334 | 0.319 | 0.318 | 0.326 | 0.301 | 0.302 |
| 950 | 0.392 | 0.374 | 0.372 | 0.358 | 0.349 | 0.356 | 0.328 | 0.328 |
| 900 | 0.441 | 0.417 | 0.416 | 0.398 | 0.389 | 0.392 | 0.358 | 0.361 |
| 850 | 0.507 | 0.472 | 0.473 | 0.447 | 0.442 | 0.436 | 0.399 | 0.402 |
| 800 | 0.592 | 0.544 | 0.544 | 0.510 | 0.512 | 0.489 | 0.454 | 0.454 |
| 750 | 0.708 | 0.642 | 0.644 | 0.604 | 0.608 | 0.554 | 0.519 | 0.516 |
| 700 | 0.872 | 0.798 | 0.785 | 0.735 | 0.741 | 0.653 | 0.606 | 0.606 |
| 650 | 1.118 | 1.006 | 0.992 | 0.910 | 0.943 | 0.806 | 0.734 | 0.727 |
| 600 | 1.492 | 1.352 | 1.318 | 1.234 | 1.218 | 1.037 | 0.935 | 0.916 |
| 550 | 2.099 | 1.912 | 1.908 | 1.786 | 1.738 | 1.454 | 1.257 | 1.179 |
| 500 | 3.155 | 2.959 | 3.041 | 2.789 | 2.613 | 2.168 | 1.812 | 1.628 |
| 450 | 4.776 | 4.652 | 4.689 | 4.451 | 4.207 | 3.438 | 2.765 | 2.379 |
| 400 | | 6.346 | | 6.729 | 6.440 | 5.503 | | 3.720 |
| 350 | | | | | 8.591 | 8.111 | | 5.976 |
| 300 | | | | | | | | 8.887 |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 442.6 | 470.2 | 446.8 | 449.8 | 485.2 | 537.8 | 578.0 | 549.6 |
| 900 | 389.9 | 425.1 | 411.8 | 439.4 | 428.1 | 494.3 | 501.2 | 493.5 |
| 850 | 346.1 | 378.2 | 374.3 | 394.1 | 366.9 | 455.5 | 430.7 | 435.8 |
| 800 | 302.3 | 326.5 | 336.7 | 343.7 | 316.5 | 418.9 | 405.5 | 394.5 |
| 750 | 260.8 | 258.4 | 281.9 | 285.9 | 272.7 | 355.8 | 348.1 | 354.5 |
| 700 | 223.3 | 230.2 | 236.1 | 242.9 | 234.1 | 271.8 | 292.1 | 302.9 |
| 650 | 193.9 | 202.2 | 196.9 | 204.9 | 204.1 | 219.1 | 244.0 | 246.6 |
| 600 | 165.1 | 166.9 | 159.7 | 156.9 | 176.0 | 182.8 | 197.8 | 216.4 |
| 550 | 132.3 | 131.9 | 123.8 | 124.4 | 136.4 | 136.3 | 157.4 | 183.9 |
| 500 | 122.5 | 109.8 | 107.4 | 109.0 | 113.5 | 116.9 | 130.5 | 145.7 |
| 450 | 124.9 | 122.1 | 139.6 | 109.6 | 106.2 | 104.7 | 109.3 | 123.7 |
| 400 | | 283.5 | | 163.2 | 144.9 | 116.3 | | 108.1 |
| 350 | | | | | 226.7 | 164.5 | | 108.5 |
| 300 | | | | | | | | 136.0 |
| LONG | -63.65 | -63.46 | -63.26 | -63.07 | -62.87 | -62.60 | -62.45 | -62.22 |
| LAT | -6.79 | -8.75 | -10.72 | -12.68 | -14.64 | -17.16 | -18.56 | -20.51 |
| QUAL | 32 | 31 | 32 | 32 | 32 | 32 | 33 | 33 |

PASS 3581 AT AGASTA, 63 618

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 163120 | 163213 | 163248 | 163340 | 163415 |
| 1000 | 0.261 | 0.219 | 0.218 | 0.201 | 0.172 |
| 950 | 0.269 | 0.241 | 0.231 | 0.212 | 0.189 |
| 900 | 0.317 | 0.270 | 0.251 | 0.227 | 0.206 |
| 850 | 0.350 | 0.303 | 0.273 | 0.245 | 0.227 |
| 800 | 0.388 | 0.338 | 0.298 | 0.266 | 0.251 |
| 750 | 0.436 | 0.382 | 0.327 | 0.290 | 0.281 |
| 700 | 0.500 | 0.437 | 0.378 | 0.346 | 0.321 |
| 650 | 0.597 | 0.502 | 0.455 | 0.428 | 0.374 |
| 600 | 0.763 | 0.604 | 0.549 | 0.532 | 0.452 |
| 550 | 1.081 | 0.761 | 0.739 | 0.671 | 0.550 |
| 500 | 1.453 | 1.094 | 1.019 | 0.898 | 0.753 |
| 450 | 1.945 | 1.646 | 1.492 | 1.307 | 1.103 |
| 400 | 2.743 | 2.336 | 2.141 | 1.815 | 1.604 |
| 350 | 4.012 | 3.323 | 3.175 | 2.631 | 2.498 |
| 300 | 6.183 | 5.092 | 4.924 | 4.173 | 3.959 |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | 497.6 | 465.2 | 668.4 | 755.2 | 513.5 |
| 900 | 506.3 | 451.2 | 583.0 | 653.7 | 512.8 |
| 850 | 484.1 | 433.7 | 537.5 | 586.3 | 488.3 |
| 800 | 456.0 | 415.0 | 492.0 | 519.0 | 463.8 |
| 750 | 400.7 | 388.3 | 446.5 | 451.6 | 422.8 |
| 700 | 318.0 | 356.4 | 380.4 | 373.2 | 354.4 |
| 650 | 252.2 | 324.6 | 303.5 | 291.9 | 298.7 |
| 600 | 200.6 | 258.5 | 227.4 | 225.2 | 260.0 |
| 550 | 170.7 | 186.6 | 184.1 | 195.1 | 221.3 |
| 500 | 167.2 | 133.0 | 149.8 | 168.2 | 175.4 |
| 450 | 159.4 | 133.8 | 137.7 | 145.6 | 133.2 |
| 400 | 141.0 | 144.1 | 132.7 | 144.1 | 126.5 |
| 350 | 124.9 | 132.5 | 122.6 | 125.3 | 111.1 |
| 300 | 112.8 | 116.3 | 106.6 | 98.4 | 111.5 |
| LONG | -61.81 | -61.43 | -61.15 | -60.72 | -60.40 |
| LAT | -23.92 | -26.88 | -28.83 | -31.73 | -33.67 |
| QUAL | 23 | 23 | 23 | 23 | 23 |

PASS 3589 AT OTTAWA, 63 619

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 54855 | 54930 | 55022 | 55057 | 55242 | 55317 | 55410 | 55445 |
| 1000 | 0.019 | 0.026 | 0.077 | 0.072 | 0.121 | 0.134 | 0.107 | 0.123 |
| 950 | 0.024 | 0.033 | 0.094 | 0.084 | 0.140 | 0.157 | 0.126 | 0.144 |
| 900 | 0.027 | 0.037 | 0.103 | 0.096 | 0.158 | 0.175 | 0.145 | 0.162 |
| 850 | 0.033 | 0.042 | 0.116 | 0.110 | 0.176 | 0.195 | 0.166 | 0.181 |
| 800 | 0.040 | 0.051 | 0.134 | 0.129 | 0.195 | 0.223 | 0.190 | 0.210 |
| 750 | 0.049 | 0.063 | 0.156 | 0.153 | 0.220 | 0.258 | 0.219 | 0.246 |
| 700 | 0.060 | 0.080 | 0.180 | 0.185 | 0.249 | 0.299 | 0.255 | 0.289 |
| 650 | 0.075 | 0.107 | 0.209 | 0.224 | 0.283 | 0.351 | 0.298 | 0.339 |
| 600 | 0.105 | 0.141 | 0.251 | 0.274 | 0.331 | 0.414 | 0.355 | 0.413 |
| 550 | 0.143 | 0.183 | 0.308 | | 0.390 | 0.486 | 0.436 | 0.526 |
| 500 | 0.191 | 0.256 | 0.375 | | 0.457 | 0.566 | 0.549 | 0.668 |
| 450 | 0.267 | | 0.475 | | | 0.675 | 0.707 | 0.848 |
| 400 | 0.372 | | 0.602 | | | 0.820 | 0.926 | 1.074 |
| 350 | 0.508 | | 0.761 | | | 1.008 | 1.200 | 1.330 |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 396.2 | 527.1 | | 366.4 | | | | |
| 900 | 318.7 | 431.5 | 437.5 | 361.7 | 445.7 | 442.0 | 361.6 | 403.8 |
| 850 | 293.1 | 326.8 | 409.4 | 335.0 | 455.5 | 417.6 | 363.6 | 382.9 |
| 800 | 267.5 | 270.7 | 363.0 | 310.5 | 426.6 | 361.6 | 353.1 | 336.9 |
| 750 | 244.3 | 235.4 | 337.1 | 287.5 | 407.5 | 340.3 | 340.8 | 302.5 |
| 700 | 221.8 | 203.8 | 319.6 | 270.4 | 388.3 | 328.8 | 324.1 | 288.2 |
| 650 | 203.2 | 195.4 | 302.0 | 255.7 | 369.2 | 313.7 | 303.9 | 273.9 |
| 600 | 192.4 | 187.0 | 281.9 | 245.7 | 339.1 | 301.3 | 264.5 | 255.3 |
| 550 | 181.6 | 178.5 | 261.0 | | 315.3 | 298.2 | 236.9 | 233.0 |
| 500 | 170.7 | 136.1 | 240.0 | | 319.7 | 295.1 | 216.1 | 215.3 |
| 450 | 154.9 | | 228.4 | | | 281.3 | 201.1 | 213.9 |
| 400 | 156.3 | | 218.7 | | | 261.9 | 193.9 | 228.5 |
| 350 | 187.4 | | 183.2 | | | 256.7 | 222.7 | 264.9 |
| 300 | | | | | | | | |
| LONG | -77.10 | -76.56 | -75.69 | -75.04 | -72.57 | -71.55 | -69.74 | -68.31 |
| LAT | 44.49 | 46.43 | 49.31 | 51.24 | 56.98 | 58.87 | 61.71 | 63.57 |
| QUAL | 33 | 33 | 32 | 33 | 33 | 32 | 32 | 33 |

PASS 3589 AT RESLUT, 63 619

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 55504 | 55521 | 55602 | 55619 | 55636 | 55656 | 55711 | 55729 |
| 1000 | 0.135 | 0.135 | 0.135 | 0.131 | 0.126 | 0.151 | 0.186 | 0.161 |
| 950 | 0.154 | 0.151 | 0.160 | 0.149 | 0.143 | 0.177 | 0.209 | 0.186 |
| 900 | 0.176 | 0.172 | 0.187 | 0.173 | 0.164 | 0.203 | 0.235 | 0.212 |
| 850 | 0.202 | 0.198 | 0.221 | 0.201 | 0.187 | 0.234 | 0.268 | 0.245 |
| 800 | 0.235 | 0.230 | 0.263 | 0.233 | 0.218 | 0.272 | 0.311 | 0.287 |
| 750 | 0.279 | 0.271 | 0.316 | 0.276 | 0.255 | 0.321 | 0.367 | 0.338 |
| 700 | 0.342 | 0.324 | 0.387 | 0.331 | 0.302 | 0.385 | 0.440 | 0.412 |
| 650 | 0.430 | 0.393 | 0.487 | 0.406 | 0.362 | 0.481 | 0.530 | 0.515 |
| 600 | 0.560 | 0.490 | 0.629 | 0.502 | 0.454 | 0.606 | 0.666 | 0.657 |
| 550 | 0.734 | 0.637 | 0.819 | 0.636 | 0.576 | 0.788 | 0.847 | 0.840 |
| 500 | 0.961 | 0.848 | 1.071 | 0.819 | 0.757 | 1.023 | 1.090 | 1.075 |
| 450 | 1.244 | 1.123 | 1.374 | 1.065 | 0.987 | 1.320 | 1.409 | 1.377 |
| 400 | | | | 1.363 | 1.267 | | 1.792 | 1.739 |
| 350 | | | | | 1.571 | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 364.6 | 399.1 | 319.2 | 353.6 | 382.6 | 345.1 | 415.7 | 371.2 |
| 900 | 360.9 | 369.4 | 307.7 | 334.6 | 364.1 | 348.4 | 388.1 | 356.1 |
| 850 | 346.2 | 345.8 | 293.7 | 326.3 | 351.9 | 343.3 | 360.7 | 332.8 |
| 800 | 312.3 | 322.4 | 279.0 | 314.0 | 326.1 | 316.7 | 328.4 | 306.5 |
| 750 | 269.2 | 292.7 | 259.1 | 287.2 | 301.3 | 281.6 | 291.7 | 277.9 |
| 700 | 233.5 | 270.7 | 232.2 | 263.5 | 278.5 | 250.3 | 267.5 | 241.8 |
| 650 | 206.8 | 252.3 | 208.6 | 244.8 | 254.5 | 231.0 | 245.9 | 219.7 |
| 600 | 196.2 | 206.2 | 199.4 | 227.0 | 225.2 | 212.2 | 226.0 | 213.9 |
| 550 | 190.1 | 187.4 | 191.3 | 210.8 | 202.8 | 200.8 | 207.4 | 208.8 |
| 500 | 191.0 | 177.9 | 196.0 | 199.0 | 199.8 | 198.3 | 199.7 | 205.8 |
| 450 | 218.3 | 193.4 | 265.6 | 200.7 | 200.0 | 223.2 | 204.3 | 210.5 |
| 400 | | | | 275.8 | 213.0 | | 240.7 | 228.2 |
| 350 | | | | | 354.8 | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -67.49 | -66.60 | -64.43 | -63.26 | -62.09 | -60.71 | -59.40 | -57.71 |
| LAT | 64.58 | 65.46 | 67.58 | 68.44 | 69.29 | 70.30 | 71.03 | 71.89 |
| QUAL | 31 | 32 | 31 | 11 | 31 | 32 | 21 | 32 |

PASS 3589 AT RESLUT, 63 619

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 55747 | 55820 | 55838 | 55855 | 55913 | 55931 | 55949 | 60006 |
| 1000 | 0.168 | 0.182 | 0.174 | 0.148 | 0.144 | 0.178 | 0.189 | 0.178 |
| 950 | 0.193 | 0.205 | 0.193 | 0.171 | 0.164 | 0.194 | 0.210 | 0.199 |
| 900 | 0.220 | 0.232 | 0.219 | 0.193 | 0.186 | 0.219 | 0.234 | 0.225 |
| 850 | 0.254 | 0.265 | 0.250 | 0.220 | 0.212 | 0.247 | 0.264 | 0.255 |
| 800 | 0.295 | 0.306 | 0.292 | 0.254 | 0.243 | 0.281 | 0.308 | 0.292 |
| 750 | 0.351 | 0.363 | 0.345 | 0.297 | 0.281 | 0.326 | 0.367 | 0.340 |
| 700 | 0.423 | 0.436 | 0.415 | 0.355 | 0.329 | 0.380 | 0.445 | 0.400 |
| 650 | 0.517 | 0.540 | 0.507 | 0.428 | 0.396 | 0.452 | 0.542 | 0.477 |
| 600 | 0.635 | 0.669 | 0.626 | 0.529 | 0.480 | 0.555 | 0.687 | 0.583 |
| 550 | 0.803 | 0.842 | 0.790 | 0.651 | 0.590 | 0.687 | 0.886 | 0.735 |
| 500 | 1.021 | 1.062 | 1.005 | 0.815 | 0.746 | 0.869 | 1.148 | 0.945 |
| 450 | 1.314 | 1.318 | 1.271 | 1.025 | 0.939 | 1.102 | 1.434 | 1.209 |
| 400 | | | 1.524 | 1.271 | 1.183 | 1.390 | | 1.463 |
| 350 | | | | 1.521 | 1.452 | 1.685 | | 1.638 |
| 300 | | | | 1.671 | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 366.8 | 402.3 | 432.9 | 373.1 | 387.2 | 486.1 | 457.5 | 418.2 |
| 900 | 356.3 | 386.9 | 382.2 | 376.9 | 387.1 | 426.7 | 419.8 | 398.7 |
| 850 | 334.0 | 354.6 | 344.9 | 360.8 | 373.5 | 396.0 | 368.4 | 379.4 |
| 800 | 310.4 | 317.4 | 320.3 | 331.8 | 354.1 | 369.0 | 319.1 | 354.4 |
| 750 | 285.0 | 285.5 | 294.2 | 303.6 | 326.7 | 345.9 | 275.5 | 324.3 |
| 700 | 263.7 | 257.9 | 263.3 | 277.0 | 288.1 | 305.6 | 257.0 | 297.1 |
| 650 | 248.3 | 246.5 | 244.3 | 256.3 | 269.3 | 262.6 | 238.5 | 271.9 |
| 600 | 233.0 | 235.0 | 230.6 | 247.2 | 253.4 | 249.5 | 217.2 | 235.5 |
| 550 | 218.0 | 223.9 | 218.9 | 238.2 | 239.4 | 236.4 | 199.4 | 213.5 |
| 500 | 207.0 | 225.0 | 217.3 | 232.2 | 230.1 | 221.3 | 204.8 | 205.2 |
| 450 | 200.8 | 276.5 | 243.8 | 228.8 | 223.2 | 216.9 | 307.2 | 232.9 |
| 400 | | | 372.9 | 258.4 | 231.1 | 237.8 | | 358.7 |
| 350 | | | | 372.5 | 283.8 | 311.6 | | 757.5 |
| 300 | | | | 943.8 | | | | |
| LONG | -56.02 | -52.17 | -49.80 | -47.57 | -44.47 | -41.09 | -37.71 | -34.07 |
| LAT | 72.76 | 74.26 | 75.05 | 75.80 | 76.51 | 77.19 | 77.87 | 78.44 |
| QUAL | 12 | 22 | 22 | 31 | 22 | 22 | 31 | 21 |

PASS 3589 AT RESLUT, 63 619

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 60024 | 60042 | 60058 | 60116 | 60134 | 60151 | 60208 | 60225 |
| 1000 | 0.177 | 0.209 | 0.204 | 0.175 | 0.175 | 0.196 | 0.165 | 0.161 |
| 950 | 0.201 | 0.236 | 0.227 | 0.195 | 0.191 | 0.218 | 0.186 | 0.181 |
| 900 | 0.228 | 0.265 | 0.251 | 0.219 | 0.212 | 0.242 | 0.208 | 0.201 |
| 850 | 0.259 | 0.300 | 0.280 | 0.249 | 0.236 | 0.271 | 0.234 | 0.226 |
| 800 | 0.298 | 0.347 | 0.316 | 0.287 | 0.269 | 0.308 | 0.266 | 0.256 |
| 750 | 0.346 | 0.407 | 0.360 | 0.332 | 0.309 | 0.353 | 0.304 | 0.295 |
| 700 | 0.409 | 0.483 | 0.415 | 0.386 | 0.359 | 0.414 | 0.352 | 0.339 |
| 650 | 0.492 | 0.590 | 0.489 | 0.453 | 0.420 | 0.496 | 0.412 | 0.391 |
| 600 | 0.607 | 0.732 | 0.590 | 0.542 | 0.509 | 0.602 | 0.499 | 0.466 |
| 550 | 0.756 | 0.930 | 0.741 | 0.668 | 0.623 | 0.748 | 0.609 | 0.565 |
| 500 | 0.961 | 1.192 | 0.936 | 0.848 | 0.787 | 0.948 | 0.776 | 0.687 |
| 450 | 1.196 | 1.451 | 1.179 | 1.089 | 1.000 | 1.218 | 0.985 | 0.863 |
| 400 | 1.445 | | 1.450 | 1.360 | 1.252 | 1.501 | 1.218 | 1.078 |
| 350 | | | | 1.629 | 1.535 | | 1.421 | 1.331 |
| 300 | | | | | 1.735 | | | 1.554 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 391.6 | 416.8 | 474.9 | 457.1 | 503.7 | 461.7 | 412.9 | 453.1 |
| 900 | 385.7 | 400.8 | 462.7 | 405.6 | 462.1 | 442.6 | 418.8 | 441.4 |
| 850 | 367.0 | 367.2 | 436.2 | 375.3 | 417.6 | 414.3 | 405.1 | 411.6 |
| 800 | 345.0 | 336.5 | 405.2 | 352.8 | 387.8 | 381.5 | 384.6 | 386.1 |
| 750 | 322.8 | 305.0 | 371.4 | 340.6 | 358.6 | 345.3 | 361.1 | 363.2 |
| 700 | 286.1 | 271.1 | 326.9 | 326.4 | 324.8 | 293.9 | 325.1 | 336.9 |
| 650 | 255.8 | 247.2 | 284.7 | 293.9 | 287.7 | 268.7 | 286.2 | 309.6 |
| 600 | 239.8 | 226.7 | 245.1 | 255.8 | 260.6 | 249.7 | 260.6 | 288.0 |
| 550 | 228.0 | 209.6 | 231.8 | 232.9 | 234.9 | 230.8 | 235.0 | 267.6 |
| 500 | 225.0 | 230.3 | 223.0 | 218.3 | 227.4 | 212.0 | 228.0 | 248.3 |
| 450 | 241.6 | 354.7 | 233.7 | 217.0 | 223.3 | 218.0 | 232.9 | 236.6 |
| 400 | 566.6 | | 276.0 | 251.5 | 253.9 | 581.2 | 271.8 | 238.5 |
| 350 | | | | 312.0 | 328.7 | | 487.0 | 300.1 |
| 300 | | | | | 671.7 | | | 581.4 |
| LONG | -29.37 | -24.67 | -20.49 | -14.77 | -8.91 | -3.39 | 2.16 | 7.72 |
| LAT | 78.92 | 79.41 | 79.84 | 80.06 | 80.24 | 80.42 | 80.44 | 80.28 |
| QUAL | 31 | 31 | 32 | 32 | 21 | 31 | 31 | 31 |

PASS 3589 AT RESLUT, 63 619

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 60244 | 60301 | 60318 | 60335 | 60353 | 60410 | 60428 | 60446 |
| 1000 | 0.196 | 0.238 | 0.226 | 0.172 | 0.171 | 0.146 | 0.152 | 0.123 |
| 950 | 0.216 | 0.255 | 0.243 | 0.185 | 0.186 | 0.163 | 0.167 | 0.141 |
| 900 | 0.239 | 0.275 | 0.263 | 0.200 | 0.207 | 0.184 | 0.186 | 0.163 |
| 850 | 0.265 | 0.296 | 0.286 | 0.217 | 0.231 | 0.209 | 0.209 | 0.188 |
| 800 | 0.300 | 0.321 | 0.311 | 0.238 | 0.261 | 0.242 | 0.237 | 0.220 |
| 750 | 0.343 | 0.350 | 0.339 | 0.265 | 0.297 | 0.283 | 0.271 | 0.257 |
| 700 | 0.397 | 0.384 | 0.370 | 0.297 | 0.339 | 0.330 | 0.311 | 0.303 |
| 650 | 0.473 | 0.427 | 0.406 | 0.335 | 0.387 | 0.386 | 0.366 | 0.357 |
| 600 | 0.568 | 0.483 | 0.450 | 0.388 | 0.444 | 0.462 | 0.439 | 0.437 |
| 550 | 0.698 | 0.558 | 0.510 | 0.459 | 0.522 | 0.554 | 0.540 | 0.543 |
| 500 | 0.860 | 0.660 | 0.590 | 0.554 | 0.615 | 0.685 | 0.670 | 0.691 |
| 450 | 1.046 | 0.794 | 0.725 | 0.674 | 0.746 | 0.847 | 0.855 | 0.879 |
| 400 | 1.216 | 1.105 | 0.902 | 0.840 | 0.914 | 1.058 | 1.093 | 1.122 |
| 350 | | 1.466 | 1.194 | 1.053 | 1.152 | 1.313 | 1.401 | 1.411 |
| 300 | | | 1.566 | 1.326 | | | | 1.656 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 498.4 | 684.3 | 625.4 | 668.6 | 511.5 | 421.4 | 473.6 | 353.3 |
| 900 | 473.3 | 662.6 | 613.3 | 613.1 | 463.3 | 393.1 | 446.4 | 343.3 |
| 850 | 438.9 | 636.7 | 601.8 | 559.6 | 429.4 | 366.0 | 417.9 | 334.5 |
| 800 | 403.0 | 609.4 | 590.6 | 506.7 | 408.8 | 342.8 | 388.8 | 322.8 |
| 750 | 358.6 | 554.8 | 573.7 | 465.3 | 389.5 | 324.0 | 362.1 | 310.2 |
| 700 | 305.9 | 498.2 | 550.9 | 429.0 | 372.9 | 312.3 | 335.9 | 293.0 |
| 650 | 285.5 | 441.2 | 496.1 | 390.1 | 357.2 | 298.7 | 293.3 | 275.9 |
| 600 | 265.0 | 384.7 | 435.9 | 323.0 | 338.9 | 278.5 | 259.8 | 247.7 |
| 550 | 260.0 | 329.0 | 369.6 | 286.2 | 313.9 | 258.8 | 242.6 | 222.0 |
| 500 | 255.8 | 279.5 | 308.1 | 268.7 | 288.9 | 246.7 | 226.2 | 215.9 |
| 450 | 292.1 | 232.3 | 263.3 | 251.1 | 261.0 | 235.2 | 212.9 | 211.6 |
| 400 | 495.0 | 150.3 | 218.5 | 232.6 | 234.3 | 231.8 | 213.0 | 213.5 |
| 350 | | 201.0 | 189.7 | 218.0 | 213.3 | 236.5 | 230.9 | 257.5 |
| 300 | | | 186.3 | 208.0 | | | | 528.7 |
| LONG | 13.94 | 19.44 | 23.95 | 28.47 | 33.26 | 37.04 | 40.49 | 43.94 |
| LAT | 80.11 | 79.93 | 79.49 | 79.05 | 78.58 | 78.03 | 77.36 | 76.69 |
| QUAL | 32 | 23 | 31 | 33 | 33 | 33 | 32 | 31 |

PASS 3615 AT QUITOE, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 50420 | 50519 | 50554 | 50629 | 50646 |
| 1000 | 0.110 | 0.139 | 0.134 | 0.143 | 0.150 |
| 950 | 0.123 | 0.160 | 0.154 | 0.158 | 0.168 |
| 900 | 0.138 | 0.177 | 0.173 | 0.179 | 0.191 |
| 850 | 0.159 | 0.198 | 0.195 | 0.205 | 0.220 |
| 800 | 0.195 | 0.230 | 0.225 | 0.241 | 0.261 |
| 750 | 0.240 | 0.278 | 0.268 | 0.292 | 0.322 |
| 700 | 0.293 | 0.345 | 0.326 | 0.362 | 0.413 |
| 650 | 0.372 | 0.435 | 0.414 | 0.479 | 0.540 |
| 600 | 0.498 | 0.595 | 0.547 | 0.678 | 0.800 |
| 550 | 0.690 | 0.913 | 0.821 | 0.959 | 1.185 |
| 500 | 1.052 | 1.391 | 1.297 | 1.377 | 1.690 |
| 450 | 1.604 | 2.145 | 2.134 | 2.076 | 2.491 |
| 400 | 2.540 | 3.289 | 3.382 | 3.202 | 3.609 |
| 350 | 3.956 | | 4.957 | | |
| 300 | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | |
|---|---|---|---|---|---|
| 950 | 446.1 | 457.7 | 435.4 | 447.1 | 419.9 |
| 900 | 383.6 | 449.7 | 411.2 | 378.5 | 361.7 |
| 850 | 322.5 | 384.6 | 369.6 | 332.8 | 321.3 |
| 800 | 267.3 | 324.0 | 326.3 | 290.8 | 276.6 |
| 750 | 240.1 | 266.8 | 280.8 | 251.6 | 227.1 |
| 700 | 229.4 | 226.9 | 238.2 | 214.4 | 193.5 |
| 650 | 193.9 | 197.8 | 201.3 | 174.4 | 163.7 |
| 600 | 161.8 | 128.5 | 162.8 | 146.5 | 127.7 |
| 550 | 141.9 | 121.4 | 120.0 | 142.6 | 135.0 |
| 500 | 122.1 | 113.7 | 105.9 | 130.7 | 137.8 |
| 450 | 112.0 | 112.9 | 103.5 | 116.2 | 128.8 |
| 400 | 111.5 | 136.3 | 113.9 | 123.7 | 153.2 |
| 350 | 121.9 | | 175.4 | | |
| 300 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LONG | -79.63 | -79.32 | -79.13 | -78.95 | -78.85 |
| LAT | -2.09 | 1.25 | 3.23 | 5.21 | 6.18 |
| QUAL | 33 | 33 | 33 | 33 | 33 |

PASS 3616 AT OTTAWA, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 51328 | 51420 | 51547 | 51640 | 51715 | 51807 | 51842 | 51935 |
| 1000 | 0.078 | 0.063 | 0.052 | 0.040 | 0.036 | 0.030 | 0.030 | 0.024 |
| 950 | 0.089 | 0.074 | 0.059 | 0.047 | 0.045 | 0.039 | 0.036 | 0.031 |
| 900 | 0.093 | 0.081 | 0.062 | 0.053 | 0.048 | 0.044 | 0.040 | 0.036 |
| 850 | 0.097 | 0.084 | 0.066 | 0.057 | 0.051 | 0.050 | 0.046 | 0.041 |
| 800 | 0.101 | 0.089 | 0.071 | 0.063 | 0.055 | 0.057 | 0.053 | 0.050 |
| 750 | 0.107 | 0.097 | 0.075 | 0.071 | 0.067 | 0.067 | 0.064 | 0.060 |
| 700 | 0.116 | 0.109 | 0.094 | 0.086 | 0.084 | 0.078 | 0.078 | 0.072 |
| 650 | 0.129 | 0.124 | 0.120 | 0.110 | 0.104 | 0.092 | 0.103 | 0.087 |
| 600 | 0.146 | 0.155 | 0.152 | 0.145 | 0.128 | 0.114 | 0.138 | 0.105 |
| 550 | 0.181 | 0.215 | 0.190 | 0.207 | 0.168 | 0.143 | 0.181 | 0.145 |
| 500 | 0.238 | 0.333 | 0.302 | 0.308 | 0.242 | 0.178 | 0.247 | 0.199 |
| 450 | 0.352 | 0.551 | 0.492 | 0.460 | 0.345 | 0.230 | 0.335 | 0.289 |
| 400 | | 0.921 | 0.732 | 0.693 | 0.508 | 0.299 | 0.466 | 0.424 |
| 350 | | 1.387 | 1.108 | 1.031 | 0.749 | 0.384 | 0.627 | 0.643 |
| 300 | | | | | 1.028 | | 0.979 | 0.942 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 900 | 1280.6 | 908.6 | 889.7 | 529.6 | 751.1 | 406.9 | 434.7 | 326.0 |
| 850 | 1170.6 | | 746.2 | 597.1 | 652.7 | 379.9 | 356.6 | 309.6 |
| 800 | 931.0 | 787.9 | 624.6 | 474.8 | 474.2 | 356.3 | 319.6 | 286.5 |
| 750 | 745.2 | 552.1 | 503.0 | 354.5 | 341.2 | 329.2 | 262.6 | 264.8 |
| 700 | 601.8 | 429.7 | 366.0 | 240.5 | 235.6 | 296.8 | 214.2 | 250.7 |
| 650 | 473.4 | 323.2 | 228.6 | 204.9 | 221.6 | 269.8 | 200.1 | 236.5 |
| 600 | 348.8 | 209.5 | 194.9 | 169.9 | 207.7 | 255.5 | 190.6 | 220.2 |
| 550 | 240.4 | 127.7 | 170.4 | 131.2 | 173.4 | 241.2 | 181.1 | 184.1 |
| 500 | 175.2 | 109.5 | 126.9 | 128.8 | 136.7 | 227.0 | 171.2 | 149.8 |
| 450 | 131.1 | 99.1 | 111.4 | 125.9 | 136.8 | 201.9 | 161.0 | 138.1 |
| 400 | | 105.5 | 121.6 | 125.2 | 132.7 | 198.2 | 150.0 | 129.7 |
| 350 | | 159.9 | 147.5 | 153.7 | 151.6 | 261.3 | 138.8 | 127.3 |
| 300 | | | | | 219.7 | | 314.6 | 144.9 |
| LONG | -76.28 | -75.83 | -74.99 | -74.40 | -73.97 | -73.27 | -72.74 | -71.85 |
| LAT | 28.90 | 31.83 | 36.71 | 39.68 | 41.63 | 44.53 | 46.47 | 49.40 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 32 | 33 | 33 |

PASS 3616 AT OTTAWA, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 52027 | 52102 | 52137 | 52230 | 52322 | 52358 |
| 1000 | 0.037 | 0.058 | 0.068 | 0.123 | 0.086 | 0.093 |
| 950 | 0.045 | 0.070 | 0.081 | 0.142 | 0.104 | 0.110 |
| 900 | 0.050 | 0.079 | 0.091 | 0.154 | 0.121 | 0.129 |
| 850 | 0.056 | 0.090 | 0.102 | 0.169 | 0.138 | 0.149 |
| 800 | 0.064 | 0.104 | 0.117 | 0.187 | 0.160 | 0.173 |
| 750 | 0.073 | 0.121 | 0.136 | 0.206 | 0.188 | 0.200 |
| 700 | 0.085 | 0.139 | 0.159 | 0.230 | 0.223 | 0.242 |
| 650 | 0.104 | 0.166 | 0.190 | 0.258 | 0.272 | 0.301 |
| 600 | 0.130 | 0.202 | 0.231 | 0.293 | 0.332 | 0.374 |
| 550 | 0.161 | 0.261 | 0.282 | 0.334 | 0.422 | 0.476 |
| 500 | 0.218 | 0.339 | 0.361 | 0.392 | 0.548 | 0.601 |
| 450 | 0.314 | 0.452 | 0.480 | 0.486 | 0.722 | 0.786 |
| 400 | | 0.611 | 0.640 | 0.611 | 0.973 | 1.058 |
| 350 | | | 0.826 | 0.782 | 1.320 | 1.472 |
| 300 | | | | 1.017 | 1.780 | 1.776 |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 900 | 437.6 | 376.2 | 423.8 | 564.1 | 350.8 | 329.4 |
| 850 | 410.8 | 361.0 | 386.5 | 516.2 | 339.3 | 338.1 |
| 800 | 388.7 | 341.7 | 350.8 | 492.1 | 319.8 | 315.2 |
| 750 | 332.2 | 327.4 | 328.3 | 476.9 | 300.3 | 292.3 |
| 700 | 281.7 | 313.0 | 305.8 | 445.9 | 279.7 | 270.3 |
| 650 | 259.2 | 272.6 | 282.6 | 414.9 | 257.4 | 248.6 |
| 600 | 236.7 | 225.1 | 258.8 | 376.7 | 235.1 | 227.0 |
| 550 | 214.2 | 209.5 | 232.3 | 338.2 | 215.1 | 215.2 |
| 500 | 155.2 | 193.9 | 187.4 | 296.2 | 196.4 | 203.8 |
| 450 | 61.7 | 176.2 | 187.2 | 248.8 | 179.5 | 183.3 |
| 400 | | 167.6 | 191.7 | 215.3 | 166.6 | 162.4 |
| 350 | | | 223.8 | 199.2 | 164.7 | 196.5 |
| 300 | | | | 1014.1 | 196.5 | 401.7 |
| LONG | -70.83 | -70.09 | -69.20 | -67.67 | -65.89 | -64.49 |
| LAT | 52.26 | 54.18 | 56.09 | 58.95 | 61.74 | 63.65 |
| QUAL | 33 | 32 | 32 | 32 | 33 | 33 |

PASS 3616 AT RESLUT, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 52454 | 52513 | 52530 | 52547 | 52606 | 52623 | 52640 | 52658 |
| 1000 | 0.150 | 0.196 | 0.154 | 0.161 | 0.164 | 0.168 | 0.154 | 0.153 |
| 950 | 0.174 | 0.227 | 0.179 | 0.184 | 0.191 | 0.193 | 0.179 | 0.176 |
| 900 | 0.198 | 0.260 | 0.210 | 0.214 | 0.220 | 0.222 | 0.208 | 0.201 |
| 850 | 0.228 | 0.307 | 0.247 | 0.248 | 0.261 | 0.258 | 0.243 | 0.232 |
| 800 | 0.263 | 0.365 | 0.292 | 0.289 | 0.312 | 0.302 | 0.285 | 0.268 |
| 750 | 0.311 | 0.439 | 0.346 | 0.340 | 0.378 | 0.355 | 0.335 | 0.311 |
| 700 | 0.368 | 0.534 | 0.414 | 0.416 | 0.458 | 0.441 | 0.411 | 0.381 |
| 650 | 0.455 | 0.647 | 0.523 | 0.519 | 0.577 | 0.550 | 0.512 | 0.469 |
| 600 | 0.572 | 0.851 | 0.671 | 0.653 | 0.765 | 0.705 | 0.653 | 0.591 |
| 550 | 0.752 | 1.140 | 0.877 | 0.825 | 1.018 | 0.901 | 0.839 | 0.762 |
| 500 | 0.984 | | 1.160 | 1.068 | 1.338 | 1.185 | 1.093 | 0.996 |
| 450 | 1.253 | | 1.457 | 1.381 | | 1.518 | 1.426 | 1.259 |
| 400 | | | | 1.651 | | | | 1.493 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 350.5 | 333.9 | 318.1 | 364.3 | 324.3 | 353.6 | 332.2 | 360.0 |
| 900 | 354.6 | 322.3 | 309.5 | 341.6 | 314.2 | 342.3 | 321.6 | 355.8 |
| 850 | 336.9 | 303.2 | 303.1 | 327.6 | 293.5 | 321.6 | 307.8 | 340.8 |
| 800 | 318.6 | 284.0 | 290.6 | 303.6 | 272.9 | 297.0 | 293.0 | 316.4 |
| 750 | 295.7 | 265.2 | 272.9 | 277.9 | 253.9 | 272.3 | 278.1 | 291.7 |
| 700 | 272.8 | 246.6 | 252.6 | 255.4 | 235.1 | 246.0 | 252.0 | 265.8 |
| 650 | 249.9 | 227.9 | 221.8 | 233.9 | 214.2 | 219.8 | 223.3 | 239.8 |
| 600 | 221.2 | 195.4 | 198.5 | 217.8 | 190.9 | 206.5 | 209.6 | 218.0 |
| 550 | 192.2 | 176.7 | 165.7 | 204.9 | 181.8 | 198.1 | 200.7 | 199.9 |
| 500 | 204.4 | | 199.8 | 197.4 | 192.4 | 188.0 | 187.5 | 210.6 |
| 450 | 228.8 | | 414.9 | 240.1 | | 284.2 | 303.0 | 256.8 |
| 400 | | | | 281.6 | | | | 429.1 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -61.72 | -60.57 | -59.46 | -58.36 | -56.98 | -55.48 | -53.98 | -52.40 |
| LAT | 66.58 | 67.55 | 68.41 | 69.27 | 70.22 | 71.05 | 71.87 | 72.74 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 32 |

PASS 3616 AT RESLUT, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 52715 | 52732 | 52749 | 52806 | 52824 | 52841 | 52859 | 52916 |
| 1000 | 0.166 | 0.152 | 0.167 | 0.150 | 0.152 | 0.175 | 0.154 | 0.158 |
| 950 | 0.194 | 0.177 | 0.191 | 0.177 | 0.174 | 0.199 | 0.177 | 0.184 |
| 900 | 0.224 | 0.204 | 0.216 | 0.203 | 0.201 | 0.228 | 0.203 | 0.209 |
| 850 | 0.261 | 0.236 | 0.249 | 0.234 | 0.233 | 0.264 | 0.232 | 0.239 |
| 800 | 0.307 | 0.275 | 0.290 | 0.272 | 0.271 | 0.306 | 0.266 | 0.276 |
| 750 | 0.362 | 0.321 | 0.340 | 0.317 | 0.314 | 0.355 | 0.306 | 0.320 |
| 700 | 0.435 | 0.384 | 0.399 | 0.375 | 0.375 | 0.413 | 0.367 | 0.372 |
| 650 | 0.573 | 0.469 | 0.467 | 0.461 | 0.455 | 0.507 | 0.445 | 0.447 |
| 600 | 0.730 | 0.585 | 0.581 | 0.569 | 0.553 | 0.623 | 0.545 | 0.549 |
| 550 | 0.929 | 0.738 | 0.731 | 0.716 | 0.706 | 0.784 | 0.698 | 0.679 |
| 500 | 1.201 | 0.967 | 0.899 | 0.907 | 0.897 | 0.988 | 0.904 | 0.849 |
| 450 | 1.553 | 1.280 | 1.086 | 1.131 | 1.192 | 1.215 | 1.182 | 1.047 |
| 400 | | 1.692 | 1.334 | 1.379 | 1.519 | 1.464 | 1.466 | 1.283 |
| 350 | | 2.072 | 1.662 | 1.704 | 1.891 | 1.769 | | 1.583 |
| 300 | | | 2.090 | | | 2.226 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 334.4 | 336.4 | 371.0 | 323.9 | 359.0 | 371.7 | 360.9 | 350.3 |
| 900 | 325.0 | 330.4 | 362.3 | 338.3 | 346.3 | 357.8 | 364.5 | 358.6 |
| 850 | 308.4 | 320.3 | 339.1 | 335.2 | 333.0 | 343.9 | 360.0 | 351.6 |
| 800 | 286.6 | 313.2 | 320.3 | 319.0 | 318.2 | 327.4 | 335.4 | 337.0 |
| 750 | 264.8 | 300.0 | 307.0 | 301.1 | 303.5 | 310.8 | 310.9 | 320.2 |
| 700 | 243.1 | 276.0 | 293.6 | 280.9 | 283.2 | 292.9 | 286.5 | 303.3 |
| 650 | 221.4 | 246.7 | 280.3 | 256.9 | 260.0 | 265.0 | 262.0 | 280.6 |
| 600 | 211.5 | 223.2 | 261.5 | 234.3 | 237.0 | 237.1 | 236.8 | 254.7 |
| 550 | 203.1 | 202.8 | 241.7 | 219.1 | 217.2 | 237.4 | 209.3 | 238.5 |
| 500 | 195.6 | 187.8 | 245.0 | 224.8 | 197.3 | 244.7 | 201.3 | 238.3 |
| 450 | 197.6 | 191.1 | 253.2 | 239.6 | 201.3 | 255.4 | 213.7 | 242.9 |
| 400 | | 214.6 | 237.7 | 241.7 | 215.5 | 256.6 | 258.9 | 242.2 |
| 350 | | 252.4 | 225.9 | 244.8 | 288.9 | 243.1 | | 283.8 |
| 300 | | | 275.7 | | | 207.2 | | |
| LONG | -50.38 | -48.29 | -46.20 | -43.80 | -40.65 | -37.67 | -34.52 | -30.40 |
| LAT | 73.51 | 74.27 | 75.04 | 75.76 | 76.47 | 77.14 | 77.84 | 78.35 |
| QUAL | 33 | 31 | 31 | 32 | 31 | 32 | 33 | 32 |

PASS 3616 AT RESLUT, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 52934 | 52951 | 53009 | 53026 | 53044 | 53102 | 53120 | 53137 |
| 1000 | 0.181 | 0.158 | 0.144 | 0.149 | 0.171 | 0.193 | 0.187 | 0.230 |
| 950 | 0.204 | 0.188 | 0.163 | 0.171 | 0.196 | 0.219 | 0.216 | 0.254 |
| 900 | 0.226 | 0.217 | 0.185 | 0.191 | 0.221 | 0.243 | 0.250 | 0.276 |
| 850 | 0.257 | 0.248 | 0.213 | 0.216 | 0.253 | 0.276 | 0.292 | 0.305 |
| 800 | 0.293 | 0.284 | 0.247 | 0.246 | 0.292 | 0.314 | 0.344 | 0.341 |
| 750 | 0.340 | 0.330 | 0.288 | 0.282 | 0.340 | 0.365 | 0.406 | 0.397 |
| 700 | 0.397 | 0.384 | 0.335 | 0.340 | 0.400 | 0.425 | 0.492 | 0.481 |
| 650 | 0.462 | 0.471 | 0.405 | 0.416 | 0.470 | 0.495 | 0.619 | 0.586 |
| 600 | 0.559 | 0.594 | 0.496 | 0.513 | 0.566 | 0.601 | 0.784 | 0.709 |
| 550 | 0.718 | 0.747 | 0.626 | 0.641 | 0.713 | 0.771 | 1.002 | 0.850 |
| 500 | 0.922 | 0.959 | 0.789 | 0.794 | 0.882 | 0.966 | 1.281 | 1.025 |
| 450 | 1.178 | 1.204 | 0.968 | 0.979 | 1.067 | 1.158 | | 1.211 |
| 400 | 1.440 | 1.429 | 1.181 | 1.206 | 1.279 | 1.406 | | |
| 350 | 1.756 | 1.646 | 1.451 | 1.483 | 1.543 | | | |
| 300 | | | 1.783 | | 1.898 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 415.7 | | 386.3 | 408.9 | 360.6 | 402.6 | 332.0 | 539.5 |
| 900 | 415.1 | 356.8 | 369.4 | 404.1 | 368.7 | 411.9 | 325.9 | 511.9 |
| 850 | 384.0 | 351.0 | 344.2 | 379.0 | 355.2 | 382.3 | 315.1 | 451.7 |
| 800 | 353.7 | 334.5 | 328.2 | 352.4 | 341.7 | 353.3 | 296.3 | 391.6 |
| 750 | 332.6 | 310.7 | 314.3 | 325.8 | 325.2 | 332.1 | 274.0 | 346.4 |
| 700 | 311.5 | 286.9 | 300.4 | 294.1 | 305.1 | 310.9 | 251.6 | 310.0 |
| 650 | 290.5 | 263.4 | 268.4 | 261.6 | 284.9 | 289.7 | 229.4 | 273.7 |
| 600 | 262.9 | 240.2 | 230.5 | 241.4 | 265.4 | 270.3 | 213.6 | 272.4 |
| 550 | 225.6 | 218.2 | 235.7 | 241.2 | 246.8 | 253.4 | 209.7 | 273.1 |
| 500 | 209.9 | 235.0 | 241.9 | 241.0 | 250.7 | 249.4 | 239.8 | 295.0 |
| 450 | 226.3 | 260.2 | 247.6 | 240.2 | 269.9 | 262.4 | | 345.9 |
| 400 | 250.0 | 323.9 | 247.2 | 242.9 | 270.5 | 245.5 | | |
| 350 | 251.6 | 403.2 | 245.2 | 258.3 | 256.0 | | | |
| 300 | | | 253.4 | | 297.8 | | | |
| LONG | -25.96 | -21.77 | -16.71 | -11.34 | -5.65 | 0.07 | 6.06 | 11.71 |
| LAT | 78.68 | 79.38 | 79.77 | 80.01 | 80.26 | 80.47 | 80.37 | 80.28 |
| QUAL | 32 | 32 | 32 | 33 | 32 | 32 | 32 | 32 |

PASS 3616 AT RESLUT, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 53154 | 53211 | 53229 | 53246 | 53305 | 53322 | 53338 | 53357 |
| 1000 | 0.188 | 0.225 | 0.233 | 0.243 | 0.253 | 0.219 | 0.214 | 0.196 |
| 950 | 0.215 | 0.259 | 0.265 | 0.275 | 0.290 | 0.253 | 0.241 | 0.226 |
| 900 | 0.238 | 0.291 | 0.301 | 0.312 | 0.331 | 0.290 | 0.277 | 0.261 |
| 850 | 0.263 | 0.327 | 0.344 | 0.360 | 0.384 | 0.337 | 0.320 | 0.304 |
| 800 | 0.294 | 0.371 | 0.398 | 0.420 | 0.452 | 0.399 | 0.371 | 0.354 |
| 750 | 0.331 | 0.420 | 0.463 | 0.495 | 0.539 | 0.474 | 0.437 | 0.418 |
| 700 | 0.386 | 0.491 | 0.538 | 0.583 | 0.642 | 0.576 | 0.536 | 0.493 |
| 650 | 0.471 | 0.577 | 0.661 | 0.706 | 0.805 | 0.731 | 0.658 | 0.600 |
| 600 | 0.577 | 0.677 | 0.830 | 0.896 | 1.027 | 0.929 | 0.841 | 0.774 |
| 550 | 0.688 | 0.792 | 1.053 | 1.134 | 1.317 | 1.173 | 1.085 | 0.994 |
| 500 | 0.807 | 0.940 | 1.340 | 1.431 | 1.702 | 1.515 | 1.432 | 1.313 |
| 450 | 0.964 | 1.122 | 1.719 | 1.841 | 2.213 | 1.978 | 1.909 | 1.881 |
| 400 | 1.146 | 1.374 | 2.063 | 2.260 | | 2.400 | 2.563 | 2.612 |
| 350 | | 1.678 | 2.372 | 2.697 | | | | |
| 300 | | | | | | | | |
| **HEIGHT** | SCALE HEIGHT, KM | | | | | | | |
| 950 | | 391.5 | 381.2 | 384.3 | 361.5 | 349.4 | 387.6 | 331.0 |
| 900 | 462.6 | 405.4 | 366.4 | 366.5 | 348.2 | 336.8 | 349.3 | 331.1 |
| 850 | 444.8 | 399.0 | 350.7 | 339.5 | 319.7 | 311.7 | 326.8 | 322.9 |
| 800 | 405.5 | 380.5 | 331.7 | 317.3 | 296.1 | 290.9 | 307.3 | 313.2 |
| 750 | 366.3 | 362.0 | 312.6 | 298.6 | 277.2 | 270.3 | 285.6 | 291.3 |
| 700 | 336.6 | 342.7 | 293.6 | 279.9 | 258.3 | 248.1 | 258.8 | 269.4 |
| 650 | 317.3 | 323.3 | 262.4 | 257.3 | 232.5 | 223.1 | 232.0 | 247.2 |
| 600 | 298.1 | 311.6 | 226.8 | 229.2 | 206.5 | 210.7 | 211.3 | 224.5 |
| 550 | 294.0 | 302.7 | 211.8 | 213.3 | 200.9 | 206.8 | 191.8 | 196.9 |
| 500 | 296.3 | 286.8 | 210.8 | 210.3 | 193.4 | 195.3 | 175.5 | 161.6 |
| 450 | 295.1 | 269.7 | 240.4 | 228.2 | 267.9 | 223.0 | 173.4 | 143.2 |
| 400 | 371.4 | 254.8 | 291.1 | 264.3 | | 285.4 | 289.6 | 159.8 |
| 350 | | 294.8 | 646.1 | 315.1 | | | | |
| 300 | | | | | | | | |
| LONG | 17.37 | 22.45 | 27.50 | 32.27 | 37.21 | 40.70 | 43.98 | 47.87 |
| LAT | 80.18 | 79.00 | 79.48 | 79.09 | 78.59 | 77.99 | 77.43 | 76.76 |
| QUAL | 31 | 32 | 31 | 31 | 31 | 31 | 31 | 33 |

PASS 3622 AT RESLUT, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 160614 | 160640 | 160650 | 160708 | 160724 | 160742 | 160800 | 160817 |
| 1000 | 0.200 | 0.209 | 0.226 | 0.215 | 0.185 | 0.172 | 0.242 | 0.240 |
| 950 | 0.248 | 0.240 | 0.255 | 0.238 | 0.207 | 0.193 | 0.279 | 0.272 |
| 900 | 0.254 | 0.270 | 0.296 | 0.270 | 0.233 | 0.221 | 0.323 | 0.314 |
| 850 | 0.288 | 0.308 | 0.349 | 0.308 | 0.266 | 0.255 | 0.375 | 0.364 |
| 800 | 0.329 | 0.354 | 0.414 | 0.351 | 0.303 | 0.296 | 0.435 | 0.421 |
| 750 | 0.392 | 0.418 | 0.491 | 0.428 | 0.371 | 0.343 | 0.512 | 0.488 |
| 700 | 0.480 | 0.525 | 0.603 | 0.549 | 0.464 | 0.417 | 0.632 | 0.602 |
| 650 | 0.593 | 0.662 | 0.764 | 0.700 | 0.579 | 0.536 | 0.783 | 0.746 |
| 600 | 0.737 | 0.831 | 0.970 | 0.888 | 0.729 | 0.684 | 0.987 | 0.921 |
| 550 | 0.933 | 1.033 | 1.232 | 1.142 | 0.937 | 0.867 | 1.321 | 1.201 |
| 500 | 1.191 | 1.323 | 1.574 | 1.443 | 1.192 | 1.148 | 1.767 | 1.593 |
| 450 | 1.469 | 1.681 | 2.005 | 1.856 | 1.594 | 1.491 | 2.370 | 2.131 |
| 400 | 1.772 | 2.029 | | | 2.070 | 1.905 | 2.942 | 2.799 |
| 350 | 2.152 | 2.351 | | | | 2.371 | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 405.9 | 390.9 | 365.0 | 462.9 | 416.3 | 396.0 | 352.1 | 384.4 |
| 900 | 402.4 | 385.5 | 336.0 | 384.5 | 380.9 | 360.7 | 342.1 | 355.8 |
| 850 | 367.0 | 353.2 | 306.9 | 346.5 | 345.1 | 333.8 | 324.0 | 330.9 |
| 800 | 331.6 | 316.9 | 285.5 | 308.6 | 309.3 | 310.3 | 301.0 | 308.3 |
| 750 | 298.1 | 283.4 | 264.5 | 280.3 | 284.9 | 286.8 | 277.9 | 285.9 |
| 700 | 265.4 | 257.9 | 245.1 | 257.6 | 262.4 | 264.6 | 254.7 | 265.2 |
| 650 | 238.4 | 232.3 | 227.0 | 234.9 | 240.0 | 243.8 | 231.5 | 244.5 |
| 600 | 221.0 | 222.2 | 214.0 | 215.3 | 221.0 | 223.0 | 208.7 | 223.9 |
| 550 | 223.6 | 216.4 | 209.2 | 212.4 | 208.4 | 204.3 | 186.7 | 204.3 |
| 500 | 233.4 | 221.1 | 203.4 | 209.5 | 194.6 | 203.2 | 176.0 | 185.3 |
| 450 | 248.1 | 246.2 | 247.5 | 347.5 | 180.4 | 202.1 | 201.9 | 189.3 |
| 400 | 260.8 | 302.1 | | | 209.5 | 229.3 | 1417.8 | 360.9 |
| 350 | 270.1 | 353.6 | | | | 269.0 | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -122.22 | -116.60 | -114.44 | -111.06 | -108.63 | -105.89 | -103.15 | -101.33 |
| LAT | 78.57 | 77.69 | 77.35 | 76.68 | 76.01 | 75.25 | 74.50 | 73.71 |
| QUAL | 32 | 32 | 33 | 32 | 31 | 31 | 32 | 32 |

PASS 3622 AT RESLUT, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 160834 | 160853 | 160910 | 160927 | 160945 | 161003 | 161020 | 161037 |
| 1000 | 0.225 | 0.224 | 0.226 | 0.209 | 0.213 | 0.220 | 0.230 | 0.213 |
| 950 | 0.256 | 0.255 | 0.259 | 0.236 | 0.232 | 0.245 | 0.253 | 0.235 |
| 900 | 0.292 | 0.297 | 0.300 | 0.270 | 0.256 | 0.279 | 0.287 | 0.261 |
| 850 | 0.332 | 0.345 | 0.351 | 0.313 | 0.286 | 0.320 | 0.331 | 0.292 |
| 800 | 0.382 | 0.402 | 0.412 | 0.364 | 0.322 | 0.366 | 0.385 | 0.329 |
| 750 | 0.446 | 0.489 | 0.483 | 0.423 | 0.363 | 0.439 | 0.448 | 0.382 |
| 700 | 0.530 | 0.599 | 0.581 | 0.525 | 0.454 | 0.545 | 0.520 | 0.468 |
| 650 | 0.666 | 0.731 | 0.738 | 0.663 | 0.576 | 0.677 | 0.605 | 0.575 |
| 600 | 0.837 | 0.940 | 0.933 | 0.832 | 0.724 | 0.836 | 0.780 | 0.707 |
| 550 | 1.047 | 1.224 | 1.193 | 1.059 | 0.917 | 1.088 | 0.998 | 0.890 |
| 500 | 1.374 | 1.615 | 1.545 | 1.345 | 1.148 | 1.427 | 1.288 | 1.109 |
| 450 | 1.776 | 2.155 | 2.007 | 1.739 | 1.484 | 1.927 | 1.693 | 1.428 |
| 400 | 2.171 | 2.700 | | 2.252 | 1.999 | | 2.138 | 1.971 |
| 350 | 2.597 | | | | 2.532 | | | 2.857 |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 382.4 | 350.9 | 343.2 | 380.1 | 526.6 | 420.7 | 454.5 | 485.3 |
| 900 | 373.8 | 325.9 | 330.3 | 352.3 | 456.5 | 384.2 | 401.1 | 441.1 |
| 850 | 358.8 | 305.7 | 316.1 | 327.9 | 414.8 | 345.5 | 348.1 | 400.7 |
| 800 | 330.9 | 286.1 | 296.5 | 304.4 | 373.0 | 306.3 | 330.7 | 360.3 |
| 750 | 295.9 | 269.0 | 276.8 | 281.0 | 331.3 | 282.8 | 313.2 | 324.6 |
| 700 | 265.4 | 252.0 | 257.7 | 262.3 | 296.9 | 265.2 | 295.8 | 296.1 |
| 650 | 248.4 | 234.9 | 239.7 | 244.6 | 262.8 | 247.6 | 277.7 | 267.6 |
| 600 | 231.3 | 215.1 | 221.6 | 227.0 | 228.8 | 230.0 | 247.1 | 240.2 |
| 550 | 214.8 | 194.3 | 207.6 | 214.2 | 215.4 | 199.7 | 216.5 | 224.5 |
| 500 | 221.3 | 191.1 | 198.6 | 203.4 | 205.3 | 194.9 | 204.7 | 208.7 |
| 450 | 227.8 | 202.5 | 185.4 | 199.0 | 195.2 | 238.5 | 217.8 | 186.8 |
| 400 | 259.6 | 245.3 | | 311.1 | 192.6 | | 252.2 | 154.0 |
| 350 | 358.8 | | | | 403.0 | | | 113.1 |
| 300 | | | | | | | | |
| LONG | -99.50 | -97.46 | -95.93 | -94.61 | -93.21 | -91.86 | -90.87 | -89.88 |
| LAT | 72.91 | 72.03 | 71.21 | 70.37 | 69.48 | 68.59 | 67.71 | 66.84 |
| QUAL | 32 | 33 | 33 | 32 | 32 | 33 | 33 | 33 |

PASS 3622 AT RESLUT, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 61055 | 161112 | 161129 | 161147 | 161206 | 161222 | 161239 | 161258 |
| 1000 | 0.216 | 0.186 | 0.143 | 0.111 | 0.148 | 0.130 | 0.124 | 0.130 |
| 950 | 0.238 | 0.204 | 0.168 | 0.133 | 0.173 | 0.152 | 0.144 | 0.153 |
| 900 | 0.268 | 0.234 | 0.196 | 0.156 | 0.203 | 0.177 | 0.167 | 0.180 |
| 850 | 0.302 | 0.267 | 0.226 | 0.182 | 0.239 | 0.208 | 0.194 | 0.213 |
| 800 | 0.344 | 0.307 | 0.264 | 0.215 | 0.285 | 0.245 | 0.227 | 0.253 |
| 750 | 0.428 | 0.352 | 0.309 | 0.253 | 0.342 | 0.295 | 0.267 | 0.302 |
| 700 | 0.536 | 0.433 | 0.361 | 0.298 | 0.409 | 0.375 | 0.339 | 0.390 |
| 650 | 0.670 | 0.548 | 0.440 | 0.367 | 0.531 | 0.475 | 0.432 | 0.501 |
| 600 | 0.846 | 0.689 | 0.559 | 0.477 | 0.732 | 0.608 | 0.545 | 0.662 |
| 550 | 1.062 | 0.868 | 0.705 | 0.610 | 0.992 | 0.824 | 0.732 | 0.892 |
| 500 | 1.337 | 1.104 | 0.880 | 0.796 | 1.363 | 1.098 | 0.965 | 1.218 |
| 450 | 1.866 | 1.386 | 1.113 | 1.073 | | 1.521 | 1.326 | 1.685 |
| 400 | 2.597 | 2.003 | 1.386 | 1.399 | | 1.965 | 1.787 | 2.285 |
| 350 | | 2.606 | 1.801 | 1.771 | | | 2.238 | |
| 300 | | | | 2.261 | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 478.4 | 506.5 | 322.8 | 298.5 | 311.2 | 313.2 | 329.8 | 310.6 |
| 900 | 405.8 | 384.0 | 322.6 | 301.5 | 301.6 | 311.1 | 327.3 | 297.5 |
| 850 | 360.3 | 356.7 | 321.7 | 300.5 | 289.0 | 292.8 | 310.8 | 281.0 |
| 800 | 315.7 | 329.4 | 307.3 | 288.7 | 271.4 | 272.2 | 285.9 | 264.2 |
| 750 | 289.5 | 302.1 | 292.9 | 276.8 | 252.3 | 252.1 | 261.5 | 246.7 |
| 700 | 263.3 | 278.7 | 278.4 | 265.0 | 233.2 | 233.0 | 241.2 | 223.0 |
| 650 | 237.1 | 257.0 | 264.5 | 248.3 | 211.2 | 213.8 | 221.0 | 199.4 |
| 600 | 220.0 | 235.2 | 251.1 | 226.6 | 186.8 | 195.8 | 200.8 | 182.2 |
| 550 | 206.4 | 215.6 | 237.7 | 205.0 | 161.5 | 181.7 | 187.3 | 170.3 |
| 500 | 188.7 | 199.0 | 225.2 | 193.4 | 130.1 | 169.1 | 173.7 | 160.2 |
| 450 | 145.2 | 181.8 | 217.8 | 195.4 | | 178.3 | 172.7 | 174.4 |
| 400 | | 127.5 | 210.5 | 200.6 | | 204.1 | 221.5 | 396.8 |
| 350 | | | 147.8 | 210.5 | | | 379.4 | |
| 300 | | | | 276.9 | | | | |
| LONG | -88.83 | -88.00 | -87.23 | -86.42 | -85.63 | -85.06 | -84.46 | -83.78 |
| LAT | 65.92 | 65.03 | 64.14 | 63.19 | 62.19 | 61.33 | 60.42 | 59.41 |
| QUAL | 32 | 32 | 32 | 32 | 22 | 22 | 22 | 23 |

PASS 3622 AT RESLUT, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 161332 |
| 1000 | 0.121 |
| 950 | 0.138 |
| 900 | 0.160 |
| 850 | 0.186 |
| 800 | 0.216 |
| 750 | 0.264 |
| 700 | 0.327 |
| 650 | 0.405 |
| 600 | 0.518 |
| 550 | 0.685 |
| 500 | 0.889 |
| 450 | 1.235 |
| 400 | 1.753 |
| 350 | 2.705 |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 350.6 |
| 900 | 335.2 |
| 850 | 309.5 |
| 800 | 283.8 |
| 750 | 263.9 |
| 700 | 245.2 |
| 650 | 226.5 |
| 600 | 209.1 |
| 550 | 193.4 |
| 500 | 177.7 |
| 450 | 156.5 |
| 400 | 126.7 |
| 350 | |
| 300 | |

| | |
|---|---|
| LONG | -82.79 |
| LAT | 57.58 |
| QUAL | 22 |

PASS 3622 AT OTTAWA, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 161314 | 161349 | 161424 | 161454 | 161557 | 161632 | 161707 | 161742 |
| 1000 | 0.109 | 0.117 | 0.116 | 0.114 | 0.109 | 0.106 | 0.105 | 0.105 |
| 950 | 0.129 | 0.137 | 0.135 | 0.132 | 0.125 | 0.124 | 0.120 | 0.118 |
| 900 | 0.149 | 0.156 | 0.154 | 0.152 | 0.142 | 0.142 | 0.137 | 0.134 |
| 850 | 0.169 | 0.177 | 0.176 | 0.173 | 0.161 | 0.162 | 0.157 | 0.153 |
| 800 | 0.194 | 0.204 | 0.203 | 0.199 | 0.185 | 0.185 | 0.179 | 0.174 |
| 750 | 0.226 | 0.237 | 0.238 | 0.230 | 0.214 | 0.211 | 0.205 | 0.199 |
| 700 | 0.266 | 0.278 | 0.281 | 0.272 | 0.254 | 0.249 | 0.238 | 0.233 |
| 650 | 0.316 | 0.333 | 0.333 | 0.321 | 0.303 | 0.295 | 0.276 | 0.275 |
| 600 | 0.387 | 0.407 | 0.397 | 0.388 | 0.361 | 0.357 | 0.324 | 0.329 |
| 550 | 0.491 | 0.512 | 0.504 | 0.492 | 0.452 | 0.443 | 0.402 | 0.405 |
| 500 | 0.630 | 0.650 | 0.639 | 0.632 | 0.575 | 0.566 | 0.521 | 0.522 |
| 450 | 0.820 | 0.846 | 0.836 | 0.826 | 0.748 | 0.735 | 0.680 | 0.679 |
| 400 | 1.069 | 1.128 | 1.108 | 1.088 | 0.986 | 0.963 | 0.886 | 0.893 |
| 350 | 1.397 | 1.511 | 1.484 | 1.456 | 1.310 | 1.276 | 1.200 | 1.220 |
| 300 | 1.841 | 2.004 | 1.977 | 2.014 | 1.808 | 1.744 | 1.661 | 1.764 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 900 | 361.3 | 376.8 | 367.4 | 360.5 | 383.2 | 367.3 | 374.5 | 385.6 |
| 850 | 361.2 | 369.0 | 354.1 | 358.4 | 365.1 | 365.7 | 374.2 | 371.7 |
| 800 | 341.6 | 347.2 | 326.1 | 341.0 | 340.4 | 352.8 | 359.7 | 357.7 |
| 750 | 322.7 | 322.6 | 305.4 | 324.5 | 316.6 | 339.8 | 345.1 | 343.8 |
| 700 | 304.3 | 296.4 | 291.3 | 309.2 | 298.5 | 314.2 | 330.3 | 321.9 |
| 650 | 272.3 | 264.3 | 277.1 | 293.9 | 280.4 | 287.4 | 315.4 | 299.1 |
| 600 | 224.6 | 235.4 | 261.1 | 226.7 | 262.2 | 247.8 | 280.8 | 262.4 |
| 550 | 213.3 | 219.8 | 231.1 | 214.3 | 237.1 | 220.9 | 211.0 | 218.7 |
| 500 | 202.4 | 203.8 | 202.2 | 201.8 | 209.4 | 206.8 | 202.0 | 204.8 |
| 450 | 194.0 | 186.5 | 186.9 | 189.0 | 191.0 | 193.3 | 191.8 | 190.0 |
| 400 | 189.5 | 177.0 | 178.5 | 178.2 | 178.8 | 181.1 | 178.5 | 172.7 |
| 350 | 185.4 | 175.4 | 174.8 | 164.5 | 167.7 | 171.9 | 161.9 | 152.0 |
| 300 | 190.8 | 188.6 | 185.0 | 169.3 | 150.4 | 160.4 | 149.2 | 132.6 |
| LONG | -83.31 | -82.31 | -81.43 | -80.72 | -79.46 | -78.41 | -77.45 | -77.02 |
| LAT | 58.55 | 56.66 | 54.76 | 53.13 | 49.67 | 47.75 | 45.82 | 43.89 |
| QUAL | 22 | 23 | 22 | 22 | 23 | 22 | 23 | 23 |

PASS 3622 AT OTTAWA, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 161817 | 161851 | 161926 | 162001 | 162036 | 162111 | 162146 | 162221 |
| 1000 | 0.100 | 0.108 | 0.115 | 0.116 | 0.115 | 0.123 | 0.128 | 0.138 |
| 950 | 0.117 | 0.124 | 0.130 | 0.131 | 0.132 | 0.138 | 0.146 | 0.157 |
| 900 | 0.135 | 0.142 | 0.145 | 0.147 | 0.149 | 0.156 | 0.165 | 0.178 |
| 850 | 0.155 | 0.161 | 0.163 | 0.167 | 0.167 | 0.177 | 0.186 | 0.202 |
| 800 | 0.178 | 0.183 | 0.185 | 0.190 | 0.192 | 0.201 | 0.212 | 0.231 |
| 750 | 0.205 | 0.207 | 0.212 | 0.217 | 0.221 | 0.229 | 0.242 | 0.265 |
| 700 | 0.241 | 0.241 | 0.248 | 0.255 | 0.258 | 0.267 | 0.285 | 0.309 |
| 650 | 0.285 | 0.281 | 0.296 | 0.303 | 0.306 | 0.313 | 0.342 | 0.362 |
| 600 | 0.336 | 0.336 | 0.354 | 0.360 | 0.362 | 0.371 | 0.412 | 0.424 |
| 550 | 0.401 | 0.413 | 0.428 | 0.437 | 0.431 | 0.457 | 0.514 | 0.537 |
| 500 | 0.513 | 0.527 | 0.549 | 0.557 | 0.560 | 0.591 | 0.651 | 0.691 |
| 450 | 0.655 | 0.682 | 0.708 | 0.715 | 0.726 | 0.772 | 0.859 | 0.923 |
| 400 | 0.869 | 0.894 | 0.933 | 0.948 | 0.967 | 1.017 | 1.157 | 1.251 |
| 350 | 1.209 | 1.202 | 1.269 | 1.288 | 1.313 | 1.381 | 1.581 | 1.705 |
| 300 | 1.709 | 1.657 | 1.788 | 1.800 | 1.897 | 1.947 | 2.159 | 2.367 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | 369.8 | 428.8 | 416.4 | 383.2 | 415.7 | 401.1 | 392.7 |
| 900 | 351.9 | 385.3 | 422.1 | 404.4 | 399.8 | 401.1 | 400.8 | 386.8 |
| 850 | 355.5 | 388.2 | 395.2 | 387.2 | 385.6 | 385.4 | 383.8 | 383.7 |
| 800 | 338.6 | 373.7 | 370.3 | 361.0 | 360.2 | 368.7 | 359.0 | 367.9 |
| 750 | 321.1 | 358.1 | 345.5 | 334.9 | 334.8 | 352.0 | 334.1 | 331.5 |
| 700 | 307.1 | 333.7 | 320.8 | 313.7 | 313.1 | 331.0 | 308.9 | 311.7 |
| 650 | 293.3 | 309.4 | 296.2 | 294.0 | 294.0 | 309.2 | 283.5 | 291.9 |
| 600 | 279.5 | 267.8 | 271.6 | 274.3 | 274.9 | 272.6 | 258.1 | 272.2 |
| 550 | 261.2 | 224.9 | 245.8 | 250.8 | 254.1 | 215.4 | 230.5 | 234.6 |
| 500 | 226.6 | 207.7 | 215.7 | 219.9 | 217.8 | 202.8 | 201.8 | 192.6 |
| 450 | 193.5 | 192.3 | 190.7 | 192.1 | 185.9 | 189.1 | 180.5 | 172.6 |
| 400 | 167.5 | 179.9 | 175.4 | 171.2 | 170.3 | 172.7 | 166.4 | 165.3 |
| 350 | 149.6 | 165.2 | 158.1 | 161.3 | 155.4 | 158.9 | 161.0 | 156.9 |
| 300 | 146.4 | 153.2 | 142.8 | 136.5 | 128.3 | 145.6 | 166.1 | 172.5 |
| LONG | -76.62 | -76.25 | -75.90 | -75.56 | -75.26 | -74.97 | -74.70 | -74.44 |
| LAT | 41.95 | 40.06 | 38.11 | 36.16 | 34.22 | 32.27 | 30.32 | 28.36 |
| QUAL | 32 | 22 | 23 | 23 | 23 | 22 | 22 | 22 |

PASS 3622 AT OTTAWA, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 162256 | 162331 | 162406 | 162441 |
| 1000 | 0.153 | 0.158 | 0.176 | 0.192 |
| 950 | 0.172 | 0.178 | 0.196 | 0.217 |
| 900 | 0.193 | 0.199 | 0.220 | 0.245 |
| 850 | 0.218 | 0.227 | 0.253 | 0.279 |
| 800 | 0.249 | 0.259 | 0.293 | 0.319 |
| 750 | 0.286 | 0.297 | 0.339 | 0.366 |
| 700 | 0.352 | 0.347 | 0.393 | 0.428 |
| 650 | 0.392 | 0.408 | 0.470 | 0.511 |
| 600 | 0.467 | 0.492 | 0.579 | 0.631 |
| 550 | 0.590 | 0.629 | 0.717 | 0.791 |
| 500 | 0.749 | 0.817 | 0.926 | 1.034 |
| 450 | 0.993 | 1.093 | 1.241 | 1.417 |
| 400 | 1.354 | 1.530 | 1.754 | 1.978 |
| 350 | 1.872 | 2.151 | 2.515 | 2.747 |
| 300 | 2.620 | 2.979 | 3.515 | 3.700 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 426.0 | 447.3 | 442.2 | 404.8 |
| 900 | 412.3 | 411.4 | 395.0 | 394.3 |
| 850 | 389.6 | 395.4 | 362.5 | 377.3 |
| 800 | 368.1 | 363.0 | 340.4 | 360.5 |
| 750 | 347.1 | 327.0 | 329.8 | 343.7 |
| 700 | 322.5 | 306.0 | 309.2 | 300.0 |
| 650 | 288.2 | 284.9 | 253.4 | 260.3 |
| 600 | 255.0 | 257.8 | 237.5 | 236.9 |
| 550 | 227.8 | 217.2 | 221.6 | 211.0 |
| 500 | 200.5 | 184.4 | 190.7 | 177.1 |
| 450 | 173.0 | 162.4 | 161.2 | 155.2 |
| 400 | 160.5 | 149.0 | 139.0 | 151.2 |
| 350 | 151.4 | 151.0 | 145.8 | 159.0 |
| 300 | 149.2 | 158.9 | 156.3 | 199.4 |
| LONG | -74.19 | -73.95 | -73.72 | -73.51 |
| LAT | 26.40 | 24.44 | 22.48 | 20.52 |
| QUAL | 23 | 22 | 22 | 22 |

PASS 3622 AT QUITOE, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 162705 | 162740 | 162815 | 162850 | 162925 | 162950 | 163035 | 163110 |
| 1000 | 0.222 | 0.248 | 0.255 | 0.248 | 0.250 | 0.251 | 0.246 | 0.242 |
| 950 | 0.252 | 0.279 | 0.289 | 0.279 | 0.280 | 0.279 | 0.273 | 0.272 |
| 900 | 0.267 | 0.319 | 0.327 | 0.316 | 0.315 | 0.316 | 0.311 | 0.311 |
| 850 | 0.327 | 0.365 | 0.373 | 0.358 | 0.357 | 0.359 | 0.354 | 0.355 |
| 800 | 0.360 | 0.423 | 0.425 | 0.417 | 0.413 | 0.411 | 0.409 | 0.410 |
| 750 | 0.442 | 0.495 | 0.495 | 0.489 | 0.482 | 0.490 | 0.488 | 0.484 |
| 700 | 0.529 | 0.588 | 0.583 | 0.584 | 0.580 | 0.592 | 0.586 | 0.573 |
| 650 | 0.648 | 0.709 | 0.708 | 0.703 | 0.701 | 0.734 | 0.719 | 0.699 |
| 600 | 0.809 | 0.879 | 0.878 | 0.893 | 0.909 | 0.935 | 0.894 | 0.895 |
| 550 | 1.047 | 1.148 | 1.152 | 1.190 | 1.227 | 1.267 | 1.183 | 1.198 |
| 500 | 1.431 | 1.589 | 1.604 | 1.768 | 1.814 | 1.859 | 1.729 | 1.858 |
| 450 | 2.123 | 2.384 | 2.490 | 2.815 | 2.902 | 2.994 | 2.952 | 3.253 |
| 400 | 3.214 | 3.738 | 4.036 | 4.365 | 4.403 | 4.654 | 4.780 | 5.351 |
| 350 | 4.571 | 5.191 | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 379.7 | 399.8 | 400.4 | 410.5 | 438.8 | 443.6 | 435.7 | 410.9 |
| 900 | 367.2 | 374.9 | 386.4 | 384.7 | 401.1 | 399.0 | 384.9 | 383.3 |
| 850 | 353.1 | 351.5 | 369.8 | 357.3 | 364.5 | 367.3 | 353.1 | 352.3 |
| 800 | 331.9 | 330.1 | 353.3 | 331.9 | 334.3 | 332.9 | 322.1 | 326.7 |
| 750 | 310.6 | 307.7 | 321.0 | 306.4 | 304.0 | 290.5 | 292.7 | 305.8 |
| 700 | 265.1 | 280.8 | 284.7 | 275.5 | 269.3 | 252.4 | 263.6 | 284.3 |
| 650 | 237.0 | 250.5 | 249.1 | 243.1 | 234.4 | 225.5 | 237.6 | 232.0 |
| 600 | 217.3 | 215.3 | 212.4 | 204.1 | 193.3 | 191.6 | 207.8 | 190.0 |
| 550 | 182.1 | 174.7 | 172.2 | 142.1 | 147.1 | 150.5 | 162.0 | 153.1 |
| 500 | 147.5 | 142.2 | 138.2 | 118.6 | 116.4 | 117.2 | 116.2 | 99.3 |
| 450 | 118.1 | 116.5 | 105.0 | 109.1 | 109.7 | 105.2 | 94.0 | 93.2 |
| 400 | 130.0 | 119.3 | 119.5 | 131.5 | 145.6 | 138.7 | 126.2 | 141.1 |
| 350 | 225.7 | 330.4 | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -73.01 | -72.82 | -72.63 | -72.44 | -72.26 | -72.12 | -71.89 | -71.71 |
| LAT | 12.46 | 10.49 | 8.53 | 6.56 | 4.60 | 3.19 | 0.67 | -1.29 |
| QUAL | 22 | 22 | 23 | 23 | 23 | 23 | 21 | 21 |

PASS 3622 AT QUITOE, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 163145 | 163220 | 163255 | 163330 | 163405 | 163440 | 163515 |
| 1000 | 0.241 | 0.246 | 0.237 | 0.241 | 0.244 | 0.233 | 0.209 |
| 950 | 0.273 | 0.276 | 0.264 | 0.267 | 0.271 | 0.259 | 0.234 |
| 900 | 0.310 | 0.311 | 0.295 | 0.298 | 0.301 | 0.290 | 0.264 |
| 850 | 0.356 | 0.350 | 0.331 | 0.337 | 0.342 | 0.327 | 0.298 |
| 800 | 0.414 | 0.403 | 0.383 | 0.390 | 0.393 | 0.378 | 0.344 |
| 750 | 0.483 | 0.468 | 0.449 | 0.467 | 0.476 | 0.451 | 0.407 |
| 700 | 0.575 | 0.566 | 0.544 | 0.577 | 0.587 | 0.556 | 0.502 |
| 650 | 0.717 | 0.718 | 0.707 | 0.767 | 0.796 | 0.738 | 0.660 |
| 600 | 0.930 | 0.976 | 0.991 | 1.094 | 1.145 | 1.076 | 0.968 |
| 550 | 1.344 | 1.504 | 1.509 | 1.735 | 1.798 | 1.742 | 1.585 |
| 500 | 2.262 | 2.531 | 2.475 | 2.793 | 2.865 | 2.809 | 2.659 |
| 450 | 3.869 | 4.038 | 3.820 | 3.871 | | 3.672 | 3.777 |
| 400 | 5.734 | | | | | | 4.441 |
| 350 | | | | | | | 5.040 |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 390.3 | 426.7 | 446.8 | 471.7 | 463.0 | 456.4 | 448.1 |
| 900 | 368.1 | 404.8 | 417.0 | 424.1 | 421.7 | 419.7 | 409.3 |
| 850 | 347.7 | 380.4 | 381.0 | 372.4 | 367.8 | 374.2 | 370.8 |
| 800 | 331.2 | 344.5 | 341.2 | 315.3 | 311.9 | 319.1 | 322.6 |
| 750 | 314.5 | 308.6 | 300.7 | 264.3 | 261.1 | 268.3 | 273.4 |
| 700 | 257.7 | 246.2 | 233.9 | 217.4 | 210.6 | 220.7 | 222.3 |
| 650 | 214.0 | 192.2 | 175.4 | 169.0 | 166.9 | 168.9 | 171.8 |
| 600 | 173.9 | 147.1 | 140.1 | 128.0 | 126.1 | 120.9 | 122.8 |
| 550 | 120.6 | 102.9 | 108.7 | 101.9 | 108.2 | 100.6 | 98.2 |
| 500 | 85.2 | 102.2 | 104.6 | 116.1 | 131.4 | 129.4 | 108.6 |
| 450 | 101.5 | 122.9 | 144.5 | 300.0 | | 311.8 | 233.1 |
| 400 | 234.3 | | | | | | |
| 350 | | | | | | | |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -71.53 | -71.34 | -71.16 | -70.97 | -70.78 | -70.58 | -70.38 |
| LAT | -3.25 | -5.22 | -7.19 | -9.15 | -11.11 | -13.07 | -15.03 |
| QUAL | 22 | 22 | 23 | 22 | 11 | 12 | 12 |

PASS 3622 AT AGASTA, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 163608 | 163722 | 163757 | 163832 | 163907 | 163942 | 164017 | 164052 |
| 1000 | 0.166 | 0.170 | 0.163 | 0.165 | 0.117 | 0.104 | 0.090 | 0.083 |
| 950 | 0.192 | 0.189 | 0.180 | 0.181 | 0.132 | 0.117 | 0.101 | 0.093 |
| 900 | 0.220 | 0.215 | 0.199 | 0.197 | 0.150 | 0.129 | 0.111 | 0.102 |
| 850 | 0.253 | 0.245 | 0.223 | 0.222 | 0.169 | 0.144 | 0.122 | 0.111 |
| 800 | 0.294 | 0.284 | 0.254 | 0.254 | 0.194 | 0.162 | 0.135 | 0.121 |
| 750 | 0.347 | 0.329 | 0.292 | 0.293 | 0.222 | 0.189 | 0.151 | 0.133 |
| 700 | 0.418 | 0.388 | 0.337 | 0.334 | 0.258 | 0.227 | 0.176 | 0.148 |
| 650 | 0.543 | 0.488 | 0.415 | 0.401 | 0.301 | 0.274 | 0.209 | 0.166 |
| 600 | 0.818 | 0.633 | 0.550 | 0.503 | 0.354 | 0.330 | 0.250 | 0.193 |
| 550 | 1.384 | 0.909 | 0.762 | 0.690 | 0.468 | 0.427 | 0.321 | 0.246 |
| 500 | 2.717 | 1.675 | 1.203 | 1.077 | 0.655 | 0.627 | 0.430 | 0.341 |
| 450 | 4.523 | 3.409 | 2.309 | 1.872 | 1.047 | 0.965 | 0.675 | 0.520 |
| 400 | | 6.163 | 4.119 | 3.078 | 1.704 | 1.450 | 1.054 | 0.825 |
| 350 | | | 6.260 | 4.622 | 2.701 | 2.125 | 1.635 | 1.355 |
| 300 | | | | | 4.020 | 3.256 | 2.634 | 2.624 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 357.9 | 423.1 | 492.6 | 532.9 | 398.3 | 471.2 | | 479.2 |
| 900 | 354.7 | 386.3 | 462.1 | 472.0 | 392.5 | 459.5 | 519.5 | 558.7 |
| 850 | 349.3 | 352.9 | 420.5 | 443.3 | 383.1 | 420.3 | 524.5 | 553.0 |
| 800 | 316.0 | 329.3 | 374.3 | 414.6 | 366.1 | 381.2 | 467.9 | 515.8 |
| 750 | 273.7 | 305.8 | 332.2 | 379.4 | 349.2 | 335.1 | 357.1 | 484.4 |
| 700 | 235.4 | 275.5 | 290.5 | 323.5 | 321.1 | 286.3 | 325.3 | 453.0 |
| 650 | 164.1 | 223.8 | 240.7 | 265.6 | 289.0 | 257.3 | 293.4 | 392.5 |
| 600 | 117.0 | 172.0 | 183.1 | 204.0 | 254.6 | 235.1 | 261.6 | 288.4 |
| 550 | 84.9 | 119.1 | 140.4 | 135.1 | 192.1 | 164.6 | 211.3 | 207.4 |
| 500 | 75.8 | 69.5 | 86.2 | 106.8 | 135.9 | 121.5 | 150.4 | 141.8 |
| 450 | 149.8 | 76.5 | 74.5 | 89.8 | 105.0 | 118.1 | 103.8 | 119.4 |
| 400 | | 103.1 | 111.7 | 113.1 | 107.2 | 128.1 | 115.2 | 107.5 |
| 350 | | | 122.2 | 138.3 | 113.1 | 124.7 | 111.8 | 89.5 |
| 300 | | | | | 165.5 | 110.8 | 95.0 | 74.4 |
| LONG | -70.06 | -69.58 | -69.34 | -69.09 | -68.82 | -68.54 | -68.24 | -67.93 |
| LAT | -18.00 | -22.14 | -24.10 | -26.05 | -28.00 | -29.95 | -31.89 | -33.84 |
| QUAL | 23 | 23 | 33 | 23 | 23 | 33 | 33 | 33 |

PASS 3622 AT AGASTA, 63 621

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 164127 | 164219 |
| 1000 | 0.085 | 0.075 |
| 950 | 0.095 | 0.080 |
| 900 | 0.103 | 0.086 |
| 850 | 0.110 | 0.093 |
| 800 | 0.119 | 0.100 |
| 750 | 0.129 | 0.108 |
| 700 | 0.142 | 0.119 |
| 650 | 0.158 | 0.132 |
| 600 | 0.183 | 0.147 |
| 550 | 0.219 | 0.180 |
| 500 | 0.296 | 0.254 |
| 450 | 0.470 | 0.358 |
| 400 | 0.775 | 0.521 |
| 350 | 1.338 | 0.787 |
| 300 | 2.676 | 1.400 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 617.0 | 679.6 |
| 900 | 694.5 | 680.4 |
| 850 | 669.7 | 678.7 |
| 800 | 643.8 | 630.9 |
| 750 | 561.1 | 555.8 |
| 700 | 478.6 | 491.9 |
| 650 | 405.5 | 428.0 |
| 600 | 328.4 | 364.1 |
| 550 | 248.6 | 292.8 |
| 500 | 134.2 | 207.4 |
| 450 | 101.6 | 144.1 |
| 400 | 98.6 | 124.0 |
| 350 | 81.4 | 109.6 |
| 300 | 67.3 | 68.0 |
| LONG | -67.59 | -67.03 |
| LAT | -35.78 | -38.66 |
| QUAL | 33 | 33 |

PASS 3643 AT OTTAWA, 63 623

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 44535 | 44610 | 44830 | 44922 | 45015 | 45142 | 45217 |
| 1000 | 0.054 | 0.039 | 0.027 | 0.026 | 0.062 | 0.041 | 0.058 |
| 950 | 0.060 | 0.045 | 0.035 | 0.034 | 0.072 | 0.050 | 0.067 |
| 900 | 0.064 | 0.049 | 0.041 | 0.041 | 0.084 | 0.058 | 0.077 |
| 850 | 0.067 | 0.054 | 0.050 | 0.048 | 0.101 | 0.069 | 0.086 |
| 800 | 0.071 | 0.061 | 0.060 | 0.056 | 0.117 | 0.081 | 0.097 |
| 750 | 0.077 | 0.069 | 0.073 | 0.076 | 0.137 | 0.095 | 0.110 |
| 700 | 0.087 | 0.080 | 0.088 | 0.103 | 0.161 | 0.112 | 0.125 |
| 650 | 0.101 | 0.095 | 0.109 | 0.138 | 0.189 | 0.136 | 0.148 |
| 600 | 0.121 | 0.119 | 0.138 | 0.182 | 0.228 | 0.165 | 0.180 |
| 550 | 0.160 | | 0.174 | 0.247 | 0.285 | 0.206 | 0.227 |
| 500 | 0.215 | | | 0.344 | 0.365 | 0.274 | 0.298 |
| 450 | 0.313 | | | 0.491 | 0.486 | 0.361 | |
| 400 | 0.468 | | | 0.707 | 0.672 | 0.500 | |
| 350 | | | | 1.021 | 0.907 | 0.691 | |
| 300 | | | | | 1.171 | 0.964 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | | 489.9 | | | 371.2 | | |
| 900 | 1136.7 | 578.4 | 276.4 | 276.7 | 320.5 | 309.1 | 404.5 |
| 850 | 963.8 | 467.7 | 269.1 | 256.2 | 314.3 | 306.7 | 416.6 |
| 800 | 718.5 | 407.8 | 261.4 | 235.6 | 320.1 | 301.7 | 413.3 |
| 750 | 509.6 | 368.1 | 252.4 | 219.2 | 311.3 | 290.9 | 395.7 |
| 700 | 426.9 | 316.5 | 243.4 | 203.0 | 313.8 | 280.2 | 324.7 |
| 650 | 344.1 | 255.6 | 224.6 | 186.7 | 282.8 | 258.6 | 289.2 |
| 600 | 266.5 | 188.3 | 198.6 | 170.7 | 252.1 | 236.9 | 253.7 |
| 550 | 207.7 | | 172.5 | 160.0 | 218.3 | 215.1 | 216.6 |
| 500 | 157.2 | | | 151.6 | 190.8 | 193.0 | 181.2 |
| 450 | 138.9 | | | 143.2 | 163.7 | 171.7 | |
| 400 | 109.8 | | | 139.5 | 163.7 | 162.1 | |
| 350 | | | | 134.1 | 178.7 | 156.3 | |
| 300 | | | | | 257.9 | 184.6 | |
| LONG | -70.78 | -70.37 | -68.32 | -67.36 | -66.20 | -63.86 | -62.69 |
| LAT | 38.77 | 40.73 | 48.50 | 51.37 | 54.27 | 58.99 | 60.86 |
| QUAL | 33 | 33 | 33 | 32 | 32 | 32 | 33 |

PASS 3643 AT RESLUT, 63 622

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 45319 | 45336 | 45353 | 45411 | 45446 | 45503 | 45521 | 45539 |
| 1000 | 0.061 | 0.090 | 0.090 | 0.082 | 0.083 | 0.080 | 0.099 | 0.109 |
| 950 | 0.075 | 0.105 | 0.104 | 0.097 | 0.099 | 0.097 | 0.114 | 0.128 |
| 900 | 0.090 | 0.126 | 0.124 | 0.116 | 0.118 | 0.114 | 0.134 | 0.150 |
| 850 | 0.109 | 0.151 | 0.148 | 0.139 | 0.140 | 0.135 | 0.157 | 0.176 |
| 800 | 0.130 | 0.179 | 0.176 | 0.164 | 0.167 | 0.160 | 0.185 | 0.207 |
| 750 | 0.160 | 0.220 | 0.212 | 0.199 | 0.202 | 0.197 | 0.224 | 0.247 |
| 700 | 0.196 | 0.273 | 0.264 | 0.242 | 0.252 | 0.246 | 0.273 | 0.297 |
| 650 | 0.246 | 0.344 | 0.329 | 0.294 | 0.312 | 0.306 | 0.337 | 0.370 |
| 600 | 0.315 | 0.462 | 0.421 | 0.378 | 0.398 | 0.382 | 0.460 | 0.460 |
| 550 | 0.401 | 0.612 | 0.562 | 0.482 | 0.530 | 0.515 | 0.619 | 0.642 |
| 500 | 0.523 | 0.857 | 0.754 | 0.645 | 0.693 | 0.679 | 0.920 | 0.891 |
| 450 | 0.810 | 1.203 | 1.082 | 0.903 | 0.975 | 0.964 | 1.317 | 1.293 |
| 400 | 1.301 | | 1.490 | 1.180 | 1.413 | 1.393 | 1.894 | 1.786 |
| 350 | | | | 1.476 | 1.887 | 1.958 | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 253.0 | 292.4 | 310.6 | 277.9 | 285.8 | 280.0 | 328.4 | 314.1 |
| 900 | 260.4 | 286.3 | 293.0 | 278.4 | 280.1 | 288.8 | 311.7 | 315.7 |
| 850 | 259.0 | 274.3 | 278.4 | 275.2 | 271.8 | 274.3 | 294.3 | 303.7 |
| 800 | 257.7 | 259.6 | 265.1 | 272.1 | 263.5 | 259.8 | 276.2 | 289.0 |
| 750 | 245.1 | 241.3 | 250.7 | 259.7 | 251.6 | 247.3 | 256.3 | 272.6 |
| 700 | 230.7 | 222.8 | 234.4 | 247.1 | 235.4 | 235.3 | 236.4 | 253.1 |
| 650 | 216.1 | 204.5 | 218.2 | 233.6 | 219.2 | 223.3 | 214.7 | 223.3 |
| 600 | 201.4 | 186.7 | 200.1 | 213.5 | 203.3 | 210.2 | 182.9 | 193.5 |
| 550 | 186.6 | 169.0 | 179.6 | 193.4 | 187.8 | 189.0 | 151.5 | 170.5 |
| 500 | 155.6 | 156.3 | 161.8 | 181.4 | 172.2 | 167.8 | 146.5 | 149.5 |
| 450 | 123.6 | 139.5 | 154.0 | 177.1 | 153.7 | 148.3 | 136.5 | 149.8 |
| 400 | 138.4 | | 166.8 | 207.1 | 165.1 | 143.4 | 1060.9 | 243.8 |
| 350 | | | | 251.0 | 310.1 | 155.4 | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -59.86 | -59.03 | -58.21 | -57.17 | -54.94 | -53.79 | -52.25 | -50.71 |
| LAT | 64.46 | 65.35 | 66.24 | 67.17 | 68.94 | 69.80 | 70.68 | 71.55 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 32 | 33 |

PASS 3643 AT RESLUT, 63 622

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 45613 | 45631 | 45648 | 45705 | 45722 | 45740 | 45757 | 45816 |
| 1000 | 0.089 | 0.115 | 0.108 | 0.103 | 0.096 | 0.154 | 0.131 | 0.149 |
| 950 | 0.109 | 0.134 | 0.127 | 0.123 | 0.113 | 0.173 | 0.148 | 0.173 |
| 900 | 0.128 | 0.159 | 0.149 | 0.143 | 0.131 | 0.198 | 0.173 | 0.199 |
| 850 | 0.152 | 0.189 | 0.175 | 0.167 | 0.153 | 0.227 | 0.200 | 0.229 |
| 800 | 0.180 | 0.227 | 0.206 | 0.195 | 0.180 | 0.259 | 0.229 | 0.264 |
| 750 | 0.214 | 0.271 | 0.250 | 0.232 | 0.211 | 0.301 | 0.268 | 0.307 |
| 700 | 0.253 | 0.332 | 0.304 | 0.279 | 0.256 | 0.351 | 0.314 | 0.366 |
| 650 | 0.311 | 0.439 | 0.371 | 0.340 | 0.312 | 0.417 | 0.368 | 0.446 |
| 600 | 0.399 | 0.574 | 0.479 | 0.424 | 0.382 | 0.512 | 0.465 | 0.543 |
| 550 | 0.516 | 0.781 | 0.613 | 0.526 | 0.496 | 0.628 | 0.587 | 0.689 |
| 500 | 0.729 | 1.082 | 0.773 | 0.697 | 0.638 | 0.765 | 0.735 | 0.917 |
| 450 | 1.014 | 1.507 | 1.084 | 0.958 | 0.827 | 1.071 | 1.000 | 1.216 |
| 400 | 1.436 | 2.053 | 1.469 | 1.349 | 1.204 | 1.487 | 1.357 | 1.686 |
| 350 | 1.847 | | 1.865 | 1.841 | 1.647 | 1.899 | 1.765 | 2.204 |
| 300 | | | 2.218 | 2.306 | 2.119 | 2.397 | 2.243 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 269.9 | 300.0 | 311.7 | 312.5 | 317.5 | 403.1 | 358.6 | 345.4 |
| 900 | 289.6 | 290.5 | 304.0 | 318.6 | 316.9 | 374.4 | 347.3 | 350.2 |
| 850 | 289.8 | 280.4 | 291.8 | 310.5 | 311.4 | 361.5 | 338.4 | 345.5 |
| 800 | 284.5 | 263.4 | 279.6 | 302.4 | 297.7 | 347.3 | 329.6 | 324.0 |
| 750 | 272.3 | 246.4 | 263.1 | 285.5 | 283.9 | 323.6 | 309.5 | 299.9 |
| 700 | 260.1 | 228.0 | 246.6 | 263.2 | 264.7 | 299.9 | 289.4 | 277.9 |
| 650 | 238.4 | 206.0 | 230.3 | 242.8 | 245.4 | 277.0 | 269.2 | 256.9 |
| 600 | 206.3 | 184.1 | 216.6 | 225.4 | 226.3 | 255.3 | 246.7 | 236.0 |
| 550 | 176.8 | 169.5 | 202.8 | 208.0 | 209.3 | 233.6 | 224.1 | 214.1 |
| 500 | 163.8 | 160.2 | 189.0 | 184.2 | 192.2 | 211.9 | 201.5 | 191.2 |
| 450 | 154.8 | 161.2 | 178.6 | 156.4 | 175.6 | 192.6 | 189.9 | 172.5 |
| 400 | 189.6 | 193.5 | 189.2 | 158.6 | 161.3 | 180.6 | 180.5 | 171.8 |
| 350 | 259.0 | | 237.7 | 201.1 | 182.8 | 206.9 | 199.1 | 286.9 |
| 300 | | | 668.5 | 422.4 | 210.9 | 216.8 | 214.5 | |
| LONG | -47.56 | -45.22 | -43.20 | -40.92 | -38.05 | -35.00 | -32.13 | -27.79 |
| LAT | 73.17 | 73.99 | 74.76 | 75.50 | 76.18 | 76.89 | 77.57 | 78.18 |
| QUAL | 33 | 33 | 22 | 33 | 33 | 32 | 33 | 33 |

PASS 3643 AT RESLUT, 63 622

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 45833 | 45850 | 45907 | 45926 | 45942 | 50000 | 50018 | 50035 |
| 1000 | 0.155 | 0.146 | 0.190 | 0.216 | 0.182 | 0.208 | 0.218 | 0.207 |
| 950 | 0.177 | 0.163 | 0.206 | 0.236 | 0.203 | 0.229 | 0.246 | 0.225 |
| 900 | 0.203 | 0.185 | 0.226 | 0.259 | 0.226 | 0.254 | 0.274 | 0.245 |
| 850 | 0.232 | 0.211 | 0.250 | 0.285 | 0.251 | 0.282 | 0.307 | 0.272 |
| 800 | 0.266 | 0.243 | 0.285 | 0.320 | 0.282 | 0.318 | 0.342 | 0.313 |
| 750 | 0.313 | 0.284 | 0.328 | 0.365 | 0.320 | 0.361 | 0.384 | 0.366 |
| 700 | 0.369 | 0.336 | 0.384 | 0.420 | 0.363 | 0.417 | 0.436 | 0.434 |
| 650 | 0.454 | 0.401 | 0.454 | 0.494 | 0.432 | 0.498 | 0.497 | 0.524 |
| 600 | 0.576 | 0.476 | 0.536 | 0.596 | 0.517 | 0.597 | 0.653 | 0.631 |
| 550 | 0.770 | 0.618 | 0.652 | 0.719 | 0.618 | 0.714 | 0.861 | 0.755 |
| 500 | 1.028 | 0.808 | 0.831 | 0.879 | 0.758 | 0.917 | 1.087 | 1.009 |
| 450 | 1.399 | 1.098 | 1.051 | 1.081 | 0.938 | 1.180 | 1.319 | 1.438 |
| 400 | 2.035 | 1.461 | 1.312 | 1.333 | 1.188 | 1.495 | 1.589 | 2.097 |
| 350 | | 1.837 | 1.649 | 1.632 | 1.554 | 1.821 | | 3.249 |
| 300 | | 2.563 | 2.026 | 1.952 | 1.871 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 369.5 | 414.8 | 562.2 | 543.3 | 468.0 | 495.2 | 429.9 | 588.3 |
| 900 | 367.2 | 387.6 | 498.3 | 506.7 | 457.0 | 465.5 | 448.3 | 498.2 |
| 850 | 347.2 | 363.7 | 435.2 | 457.0 | 426.9 | 437.9 | 460.2 | 417.9 |
| 800 | 325.3 | 335.5 | 389.9 | 414.8 | 400.2 | 400.5 | 425.1 | 373.1 |
| 750 | 301.1 | 305.9 | 344.5 | 377.8 | 373.5 | 359.7 | 382.2 | 328.3 |
| 700 | 276.8 | 285.6 | 316.4 | 340.9 | 346.8 | 323.5 | 338.7 | 293.2 |
| 650 | 252.5 | 266.3 | 294.6 | 312.4 | 322.3 | 298.6 | 295.3 | 272.2 |
| 600 | 223.8 | 247.0 | 272.8 | 291.7 | 297.9 | 273.6 | 263.6 | 251.1 |
| 550 | 194.4 | 215.6 | 256.4 | 271.0 | 273.6 | 248.7 | 231.8 | 230.1 |
| 500 | 169.3 | 182.4 | 247.9 | 251.7 | 250.3 | 242.4 | 233.8 | 193.6 |
| 450 | 153.1 | 183.4 | 239.4 | 241.1 | 227.6 | 238.4 | 253.4 | 145.4 |
| 400 | 259.6 | 179.6 | 231.4 | 247.4 | 221.3 | 243.7 | 582.9 | 124.8 |
| 350 | | 158.6 | 239.5 | 286.7 | 234.2 | 391.1 | | 205.9 |
| 300 | | 1559.5 | 347.6 | 427.1 | 306.3 | | | |
| LONG | -23.72 | -19.64 | -15.08 | -9.19 | -4.22 | 1.36 | 7.38 | 13.06 |
| LAT | 78.69 | 79.21 | 79.62 | 79.92 | 80.17 | 80.45 | 80.38 | 80.32 |
| QUAL | 32 | 32 | 31 | 31 | 21 | 31 | 32 | 33 |

PASS 3643 AT RESLUT, 63 622

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 50052 | 50111 | 50128 | 50145 | 50203 | 50220 |
| 1000 | 0.199 | 0.225 | 0.217 | 0.192 | 0.186 | 0.165 |
| 950 | 0.215 | 0.249 | 0.238 | 0.218 | 0.213 | 0.195 |
| 900 | 0.236 | 0.279 | 0.262 | 0.249 | 0.246 | 0.228 |
| 850 | 0.267 | 0.312 | 0.292 | 0.285 | 0.286 | 0.267 |
| 800 | 0.310 | 0.354 | 0.327 | 0.329 | 0.336 | 0.314 |
| 750 | 0.363 | 0.403 | 0.379 | 0.380 | 0.395 | 0.372 |
| 700 | 0.421 | 0.472 | 0.453 | 0.460 | 0.471 | 0.450 |
| 650 | 0.485 | 0.566 | 0.544 | 0.575 | 0.574 | 0.555 |
| 600 | 0.589 | 0.681 | 0.660 | 0.716 | 0.715 | 0.694 |
| 550 | 0.747 | 0.817 | 0.813 | 0.930 | 0.912 | 0.899 |
| 500 | 0.945 | 1.094 | 0.995 | 1.213 | 1.184 | 1.214 |
| 450 | 1.194 | 1.520 | 1.426 | 1.638 | 1.599 | 1.673 |
| 400 | 1.500 | | 1.950 | 2.139 | 2.204 | 2.346 |
| 350 | 1.923 | | 2.470 | 2.682 | 2.906 | 2.885 |
| 300 | 2.449 | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 572.7 | 456.4 | 514.9 | 378.6 | 356.1 | 305.7 |
| 900 | 460.7 | 433.0 | 476.0 | 365.0 | 339.5 | 310.2 |
| 850 | 405.7 | 410.7 | 427.9 | 346.9 | 326.7 | 309.0 |
| 800 | 368.6 | 375.0 | 379.7 | 322.1 | 315.6 | 306.0 |
| 750 | 335.4 | 339.3 | 343.4 | 297.3 | 296.7 | 276.8 |
| 700 | 312.9 | 309.9 | 314.4 | 272.0 | 265.9 | 247.3 |
| 650 | 290.4 | 285.3 | 285.3 | 246.5 | 239.2 | 226.7 |
| 600 | 267.2 | 260.8 | 256.3 | 221.1 | 221.6 | 209.0 |
| 550 | 243.3 | 236.2 | 227.6 | 200.2 | 201.5 | 189.1 |
| 500 | 220.8 | 214.4 | 198.8 | 180.7 | 181.7 | 166.8 |
| 450 | 216.4 | 194.6 | 169.7 | 188.5 | 166.1 | 155.1 |
| 400 | 212.4 | | 178.5 | 201.3 | 171.2 | 190.8 |
| 350 | 209.6 | | 1322.2 | 1230.6 | 251.5 | 484.9 |
| 300 | 209.3 | | | | | |
| LONG | 18.75 | 24.58 | 29.45 | 34.33 | 39.26 | 42.86 |
| LAT | 80.26 | 79.99 | 79.62 | 79.25 | 78.83 | 78.24 |
| QUAL | 33 | 33 | 32 | 22 | 22 | 22 |

PASS 3663 AT RESLUT, 63 624

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 161012 | 161030 | 161049 | 161106 | 161123 | 161140 | 161159 | 161215 |
| 1000 | 0.134 | 0.151 | 0.178 | 0.168 | 0.165 | 0.143 | 0.208 | 0.174 |
| 950 | 0.150 | 0.168 | 0.201 | 0.191 | 0.184 | 0.158 | 0.228 | 0.199 |
| 900 | 0.170 | 0.190 | 0.228 | 0.217 | 0.208 | 0.179 | 0.253 | 0.228 |
| 850 | 0.193 | 0.215 | 0.259 | 0.248 | 0.237 | 0.204 | 0.290 | 0.261 |
| 800 | 0.221 | 0.246 | 0.295 | 0.285 | 0.268 | 0.233 | 0.338 | 0.299 |
| 750 | 0.254 | 0.280 | 0.338 | 0.334 | 0.309 | 0.272 | 0.396 | 0.347 |
| 700 | 0.295 | 0.328 | 0.398 | 0.401 | 0.364 | 0.319 | 0.477 | 0.412 |
| 650 | 0.349 | 0.391 | 0.473 | 0.485 | 0.437 | 0.381 | 0.581 | 0.499 |
| 600 | 0.420 | 0.474 | 0.571 | 0.595 | 0.535 | 0.460 | 0.709 | 0.617 |
| 550 | 0.510 | 0.580 | 0.695 | 0.736 | 0.665 | 0.569 | 0.882 | 0.764 |
| 500 | 0.628 | 0.714 | 0.856 | 0.919 | 0.829 | 0.707 | 1.111 | 0.966 |
| 450 | 0.783 | 0.890 | 1.069 | 1.161 | 1.047 | 0.896 | 1.420 | 1.232 |
| 400 | 0.986 | 1.118 | 1.331 | 1.467 | 1.346 | 1.146 | 1.829 | 1.591 |
| 350 | 1.262 | 1.408 | | 1.870 | 1.742 | 1.470 | | 2.046 |
| 300 | | | | | | 1.883 | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 418.6 | 429.8 | 419.4 | 398.2 | 444.4 | 449.2 | 500.2 | 381.0 |
| 900 | 399.8 | 408.7 | 396.8 | 379.7 | 405.2 | 397.7 | 432.3 | 370.1 |
| 850 | 376.7 | 389.9 | 379.6 | 360.1 | 387.1 | 368.1 | 359.9 | 367.1 |
| 800 | 360.1 | 369.9 | 365.8 | 334.0 | 372.5 | 344.9 | 321.9 | 348.1 |
| 750 | 344.9 | 348.8 | 341.5 | 300.1 | 330.6 | 325.8 | 293.9 | 313.9 |
| 700 | 319.5 | 305.0 | 294.2 | 268.8 | 293.9 | 306.7 | 260.4 | 275.2 |
| 650 | 286.6 | 271.8 | 277.4 | 252.1 | 262.7 | 277.1 | 251.5 | 246.7 |
| 600 | 268.0 | 258.9 | 263.9 | 242.4 | 239.8 | 250.4 | 244.8 | 238.6 |
| 550 | 250.8 | 247.2 | 252.8 | 232.0 | 228.2 | 238.9 | 227.0 | 230.5 |
| 500 | 236.0 | 236.6 | 236.4 | 220.8 | 222.3 | 226.4 | 212.2 | 213.6 |
| 450 | 223.2 | 226.1 | 228.4 | 217.9 | 212.4 | 209.1 | 202.9 | 202.6 |
| 400 | 211.1 | 225.0 | 239.8 | 209.6 | 199.4 | 204.1 | 201.7 | 196.3 |
| 350 | 196.8 | 271.6 | | 201.5 | 195.7 | 202.8 | | 208.7 |
| 300 | | | | | | 206.9 | | |
| LONG | -177.13 | -171.22 | -164.97 | -159.42 | -153.93 | -148.44 | -142.30 | -138.10 |
| LAT | 80.10 | 80.25 | 80.42 | 80.44 | 80.26 | 80.07 | 79.86 | 79.44 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3663 AT RESLUT, 63 624

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 161233 | 161251 | 161308 | 161325 | 161343 | 161401 | 161416 | 161435 |
| 1000 | 0.155 | 0.177 | 0.179 | 0.176 | 0.150 | 0.166 | 0.158 | 0.132 |
| 950 | 0.174 | 0.193 | 0.203 | 0.198 | 0.173 | 0.183 | 0.176 | 0.148 |
| 900 | 0.198 | 0.215 | 0.229 | 0.223 | 0.200 | 0.207 | 0.197 | 0.169 |
| 850 | 0.227 | 0.243 | 0.260 | 0.253 | 0.229 | 0.236 | 0.223 | 0.194 |
| 800 | 0.260 | 0.277 | 0.298 | 0.291 | 0.261 | 0.270 | 0.259 | 0.222 |
| 750 | 0.302 | 0.325 | 0.348 | 0.338 | 0.301 | 0.315 | 0.306 | 0.259 |
| 700 | 0.358 | 0.385 | 0.414 | 0.401 | 0.358 | 0.377 | 0.370 | 0.310 |
| 650 | 0.431 | 0.464 | 0.506 | 0.489 | 0.432 | 0.460 | 0.457 | 0.376 |
| 600 | 0.530 | 0.572 | 0.628 | 0.608 | 0.526 | 0.570 | 0.580 | 0.461 |
| 550 | 0.658 | 0.721 | 0.795 | 0.765 | 0.655 | 0.711 | 0.742 | 0.579 |
| 500 | 0.829 | 0.943 | 1.016 | 0.972 | 0.818 | 0.891 | 0.961 | 0.727 |
| 450 | 1.060 | 1.265 | 1.304 | 1.243 | 1.041 | 1.140 | 1.256 | 0.927 |
| 400 | 1.364 | 1.691 | | 1.600 | 1.335 | 1.459 | 1.620 | 1.184 |
| 350 | 1.766 | | | 2.081 | 1.731 | 1.879 | 1.939 | 1.504 |
| 300 | 2.292 | | | | 2.268 | 2.448 | | 1.864 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 418.0 | 520.5 | 404.1 | 415.5 | 351.4 | 464.5 | 454.2 | 399.1 |
| 900 | 383.0 | 449.9 | 401.3 | 405.2 | 358.3 | 401.2 | 420.9 | 380.5 |
| 850 | 365.4 | 393.7 | 377.9 | 385.7 | 372.8 | 372.4 | 367.8 | 364.5 |
| 800 | 347.3 | 348.0 | 343.8 | 343.2 | 356.5 | 343.1 | 318.8 | 338.2 |
| 750 | 314.3 | 312.8 | 305.8 | 310.3 | 324.3 | 306.9 | 282.5 | 306.7 |
| 700 | 280.8 | 276.0 | 266.8 | 274.0 | 274.2 | 270.6 | 249.4 | 274.8 |
| 650 | 256.6 | 253.4 | 244.5 | 239.7 | 257.7 | 244.1 | 223.2 | 249.0 |
| 600 | 242.3 | 229.1 | 228.4 | 227.6 | 242.5 | 234.7 | 213.4 | 230.3 |
| 550 | 230.8 | 204.3 | 212.3 | 215.5 | 231.9 | 224.6 | 201.5 | 224.8 |
| 500 | 211.9 | 181.0 | 204.6 | 209.0 | 221.1 | 213.7 | 191.4 | 219.2 |
| 450 | 202.5 | 173.1 | 204.2 | 204.1 | 209.0 | 209.3 | 196.0 | 209.3 |
| 400 | 198.3 | 173.6 | | 191.1 | 198.9 | 202.8 | 221.1 | 208.9 |
| 350 | 194.1 | | | 189.9 | 191.2 | 193.1 | 435.7 | 226.5 |
| 300 | 211.1 | | | | 187.8 | 188.4 | | 269.3 |
| LONG | -133.44 | -128.79 | -124.98 | -121.84 | -118.51 | -115.24 | -113.29 | -110.83 |
| LAT | 78.95 | 78.46 | 77.91 | 77.26 | 76.58 | 75.90 | 75.23 | 74.39 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 31 | 32 |

PASS 3663 AT RESLUT, 63 624

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 161442 | 161510 | 161527 | 161545 | 161602 | 161619 | 161638 | 161655 |
| 1000 | 0.163 | 0.196 | 0.225 | 0.299 | 0.290 | 0.248 | 0.263 | 0.296 |
| 950 | 0.186 | 0.215 | 0.244 | 0.327 | 0.321 | 0.280 | 0.297 | 0.323 |
| 900 | 0.210 | 0.237 | 0.268 | 0.364 | 0.356 | 0.318 | 0.339 | 0.353 |
| 850 | 0.234 | 0.263 | 0.304 | 0.410 | 0.397 | 0.361 | 0.388 | 0.383 |
| 800 | 0.266 | 0.296 | 0.350 | 0.462 | 0.449 | 0.410 | 0.442 | 0.421 |
| 750 | 0.308 | 0.342 | 0.404 | 0.528 | 0.519 | 0.472 | 0.505 | 0.467 |
| 700 | 0.362 | 0.401 | 0.470 | 0.620 | 0.608 | 0.556 | 0.584 | 0.548 |
| 650 | 0.434 | 0.481 | 0.556 | 0.742 | 0.725 | 0.664 | 0.688 | 0.655 |
| 600 | 0.529 | 0.585 | 0.660 | 0.901 | 0.867 | 0.809 | 0.824 | 0.785 |
| 550 | 0.650 | 0.713 | 0.813 | 1.117 | 1.073 | 0.995 | 1.008 | 0.934 |
| 500 | 0.807 | 0.893 | 1.022 | 1.407 | 1.338 | 1.242 | 1.262 | 1.140 |
| 450 | 1.027 | 1.120 | 1.313 | 1.796 | 1.684 | 1.560 | 1.597 | 1.412 |
| 400 | 1.311 | 1.412 | 1.690 | 2.282 | 2.144 | 1.963 | 2.036 | |
| 350 | 1.674 | 1.783 | 2.196 | 2.798 | 2.714 | 2.404 | 2.603 | |
| 300 | 2.120 | | 2.888 | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 399.3 | 519.5 | 550.2 | 507.5 | 492.2 | 398.7 | 389.9 | 560.8 |
| 900 | 435.7 | 496.3 | 468.7 | 453.1 | 475.8 | 397.1 | 377.3 | 587.6 |
| 850 | 415.1 | 446.9 | 383.7 | 421.1 | 422.9 | 395.1 | 375.9 | 557.5 |
| 800 | 370.2 | 388.9 | 354.0 | 391.5 | 366.8 | 362.1 | 377.3 | 475.2 |
| 750 | 329.7 | 331.9 | 332.7 | 336.5 | 334.3 | 325.4 | 352.0 | 397.8 |
| 700 | 292.6 | 288.7 | 305.4 | 304.5 | 304.2 | 299.1 | 324.1 | 357.4 |
| 650 | 263.8 | 271.5 | 288.4 | 274.9 | 282.8 | 274.6 | 298.7 | 317.1 |
| 600 | 246.7 | 260.2 | 271.4 | 250.1 | 261.4 | 255.2 | 267.5 | 286.6 |
| 550 | 238.3 | 248.9 | 243.5 | 229.8 | 241.0 | 238.2 | 236.1 | 266.5 |
| 500 | 226.1 | 231.3 | 211.6 | 213.9 | 224.4 | 225.1 | 221.8 | 259.4 |
| 450 | 207.4 | 219.9 | 204.5 | 208.5 | 214.2 | 221.4 | 211.2 | 256.3 |
| 400 | 205.9 | 217.1 | 196.1 | 226.1 | 210.5 | 231.1 | 206.6 | |
| 350 | 207.5 | 221.7 | 188.4 | 310.2 | 212.6 | 266.6 | 200.2 | |
| 300 | 238.3 | | 204.9 | | | | | |
| LONG | -109.92 | -106.65 | -105.08 | -103.41 | -101.88 | -100.72 | -99.42 | -98.26 |
| LAT | 74.08 | 72.81 | 71.99 | 71.13 | 70.31 | 69.45 | 68.50 | 67.64 |
| QUAL | 32 | 32 | 33 | 31 | 33 | 33 | 33 | 33 |

PASS 3663 AT RESLUT, 63 624

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 161713 | 161730 | 161747 | 161804 | 161822 | 161840 | 161858 | 161914 |
| 1000 | 0.346 | 0.366 | 0.232 | 0.222 | 0.243 | 0.251 | 0.257 | 0.194 |
| 950 | 0.374 | 0.391 | 0.253 | 0.239 | 0.275 | 0.273 | 0.282 | 0.213 |
| 900 | 0.407 | 0.419 | 0.277 | 0.264 | 0.304 | 0.298 | 0.311 | 0.230 |
| 850 | 0.448 | 0.456 | 0.310 | 0.293 | 0.335 | 0.327 | 0.341 | 0.253 |
| 800 | 0.499 | 0.504 | 0.350 | 0.328 | 0.371 | 0.359 | 0.376 | 0.283 |
| 750 | 0.567 | 0.566 | 0.398 | 0.372 | 0.414 | 0.398 | 0.420 | 0.322 |
| 700 | 0.653 | 0.644 | 0.458 | 0.424 | 0.463 | 0.450 | 0.477 | 0.372 |
| 650 | 0.765 | 0.743 | 0.539 | 0.498 | 0.535 | 0.517 | 0.549 | 0.436 |
| 600 | 0.901 | 0.869 | 0.639 | 0.592 | 0.625 | 0.607 | 0.641 | 0.521 |
| 550 | 1.068 | 1.031 | 0.762 | 0.710 | 0.742 | 0.725 | 0.760 | 0.630 |
| 500 | 1.324 | 1.239 | 0.926 | 0.862 | 0.888 | 0.869 | 0.918 | 0.763 |
| 450 | 1.638 | 1.508 | 1.155 | 1.070 | 1.095 | 1.094 | 1.142 | 0.957 |
| 400 | 2.008 | 1.835 | 1.450 | 1.342 | 1.385 | 1.392 | 1.439 | 1.233 |
| 350 | | | 1.833 | 1.681 | 1.796 | 1.792 | 1.872 | 1.592 |
| 300 | | | | | 2.415 | 2.316 | 2.372 | 1.999 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 617.3 | 733.2 | 559.2 | 576.5 | 457.5 | 589.3 | 519.4 | 599.1 |
| 900 | 555.0 | 649.2 | 488.0 | 504.1 | 501.2 | 554.9 | 530.7 | 579.7 |
| 850 | 484.7 | 537.9 | 445.4 | 462.7 | 495.9 | 534.4 | 527.1 | 486.9 |
| 800 | 415.7 | 464.4 | 404.6 | 421.3 | 468.3 | 510.6 | 466.6 | 419.3 |
| 750 | 379.5 | 417.4 | 366.3 | 379.5 | 429.3 | 432.9 | 417.3 | 371.8 |
| 700 | 345.1 | 377.8 | 329.1 | 338.3 | 388.6 | 378.8 | 377.7 | 330.8 |
| 650 | 316.0 | 343.3 | 310.3 | 316.2 | 353.1 | 339.0 | 345.0 | 296.7 |
| 600 | 288.1 | 312.7 | 296.2 | 297.5 | 317.5 | 307.6 | 313.3 | 277.7 |
| 550 | 269.2 | 289.1 | 276.7 | 276.1 | 289.5 | 282.4 | 281.9 | 265.1 |
| 500 | 252.2 | 271.2 | 238.5 | 245.0 | 263.9 | 257.1 | 244.1 | 250.8 |
| 450 | 239.9 | 260.3 | 229.5 | 233.0 | 234.3 | 227.5 | 225.5 | 210.5 |
| 400 | 266.5 | 268.7 | 224.0 | 228.8 | 204.8 | 204.8 | 211.2 | 202.9 |
| 350 | | | 233.3 | 251.3 | 183.6 | 195.5 | 203.3 | 211.9 |
| 300 | | | | | 160.9 | 191.3 | 256.0 | 253.2 |
| LONG | -97.25 | -96.36 | -95.48 | -94.65 | -93.92 | -93.20 | -92.47 | -91.94 |
| LAT | 66.71 | 65.83 | 64.95 | 64.06 | 63.11 | 62.16 | 61.21 | 60.35 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3663 AT OTTAWA, 63 624

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1620.6 | 162051 | 162126 | 162201 | 162236 | 162311 | 162346 | 162421 |
| 1000 | 0.168 | 0.135 | 0.124 | 0.125 | 0.120 | 0.115 | 0.120 | 0.120 |
| 950 | 0.186 | 0.156 | 0.142 | 0.143 | 0.137 | 0.132 | 0.136 | 0.139 |
| 900 | 0.210 | 0.179 | 0.163 | 0.166 | 0.157 | 0.152 | 0.156 | 0.159 |
| 850 | 0.239 | 0.206 | 0.189 | 0.193 | 0.181 | 0.177 | 0.181 | 0.182 |
| 800 | 0.271 | 0.237 | 0.218 | 0.222 | 0.208 | 0.205 | 0.210 | 0.212 |
| 750 | 0.318 | 0.274 | 0.254 | 0.258 | 0.243 | 0.241 | 0.244 | 0.247 |
| 700 | 0.378 | 0.321 | 0.299 | 0.305 | 0.285 | 0.284 | 0.290 | 0.292 |
| 650 | 0.454 | 0.384 | 0.355 | 0.366 | 0.341 | 0.342 | 0.347 | 0.348 |
| 600 | 0.555 | 0.470 | 0.433 | 0.448 | 0.414 | 0.422 | 0.423 | 0.425 |
| 550 | 0.691 | 0.585 | 0.542 | 0.564 | 0.520 | 0.530 | 0.532 | 0.533 |
| 500 | 0.868 | 0.746 | 0.702 | 0.724 | 0.667 | 0.689 | 0.692 | 0.687 |
| 450 | 1.105 | 0.982 | 0.946 | 0.954 | 0.895 | 0.920 | 0.932 | 0.923 |
| 400 | 1.426 | 1.329 | 1.314 | 1.296 | 1.223 | 1.249 | 1.277 | 1.257 |
| 350 | 1.861 | 1.828 | 1.797 | 1.759 | 1.674 | 1.734 | 1.781 | 1.739 |
| 300 | 2.456 | | | 2.387 | 2.266 | 2.375 | 2.441 | 2.426 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 453.0 | 351.6 | 358.6 | 350.8 | 366.5 | 354.6 | 387.0 | 355.6 |
| 900 | 406.6 | 358.8 | 351.2 | 342.4 | 358.4 | 342.1 | 359.3 | 355.6 |
| 850 | 377.6 | 358.9 | 344.7 | 345.4 | 348.6 | 332.4 | 342.9 | 343.7 |
| 800 | 350.2 | 345.1 | 335.6 | 337.0 | 335.3 | 324.0 | 328.7 | 328.9 |
| 750 | 312.7 | 325.0 | 314.2 | 316.1 | 318.8 | 305.7 | 313.5 | 314.0 |
| 700 | 281.2 | 299.5 | 294.2 | 290.9 | 300.9 | 284.4 | 291.3 | 292.4 |
| 650 | 260.5 | 265.3 | 274.8 | 259.0 | 273.6 | 257.1 | 264.0 | 269.6 |
| 600 | 244.4 | 238.8 | 240.5 | 232.3 | 234.9 | 229.6 | 233.6 | 239.0 |
| 550 | 231.9 | 221.1 | 209.9 | 213.6 | 210.8 | 205.2 | 205.4 | 211.4 |
| 500 | 215.5 | 199.6 | 187.9 | 194.5 | 191.4 | 187.5 | 183.5 | 187.1 |
| 450 | 200.7 | 176.3 | 159.4 | 173.7 | 168.9 | 173.2 | 169.0 | 172.1 |
| 400 | 195.5 | 162.5 | 156.1 | 164.3 | 161.8 | 161.5 | 156.5 | 160.5 |
| 350 | 191.2 | 154.6 | 165.7 | 162.8 | 164.4 | 156.4 | 155.6 | 153.8 |
| 300 | 211.5 | | | 159.3 | 167.7 | 167.7 | 176.0 | 164.8 |
| LONG | -90.04 | -89.13 | -88.33 | -87.57 | -86.93 | -86.32 | -85.78 | -85.28 |
| LAT | 57.01 | 55.12 | 53.21 | 51.30 | 49.38 | 47.45 | 45.52 | 43.59 |
| QUAL | 33 | 33 | 33 | 23 | 22 | 23 | 22 | 13 |

PASS 3663 AT OTTAWA, 63 624

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 162456 | 162531 | 162606 | 162641 | 162716 | 162751 | 162826 | 162901 |
| 1000 | 0.113 | 0.118 | 0.126 | 0.142 | 0.155 | 0.150 | 0.191 | 0.186 |
| 950 | 0.132 | 0.135 | 0.144 | 0.163 | 0.176 | 0.173 | 0.209 | 0.209 |
| 900 | 0.151 | 0.157 | 0.166 | 0.187 | 0.199 | 0.200 | 0.233 | 0.238 |
| 850 | 0.174 | 0.181 | 0.192 | 0.215 | 0.229 | 0.229 | 0.266 | 0.274 |
| 800 | 0.203 | 0.211 | 0.222 | 0.249 | 0.265 | 0.266 | 0.310 | 0.321 |
| 750 | 0.238 | 0.247 | 0.261 | 0.290 | 0.308 | 0.312 | 0.362 | 0.375 |
| 700 | 0.281 | 0.293 | 0.310 | 0.342 | 0.363 | 0.372 | 0.426 | 0.438 |
| 650 | 0.336 | 0.351 | 0.372 | 0.411 | 0.435 | 0.450 | 0.514 | 0.529 |
| 600 | 0.409 | 0.429 | 0.452 | 0.499 | 0.528 | 0.549 | 0.635 | 0.654 |
| 550 | 0.513 | 0.544 | 0.570 | 0.628 | 0.659 | 0.695 | 0.789 | 0.824 |
| 500 | 0.661 | 0.710 | 0.736 | 0.803 | 0.851 | 0.895 | 1.032 | 1.100 |
| 450 | 0.880 | 0.953 | 0.991 | 1.080 | 1.155 | 1.214 | 1.451 | 1.509 |
| 400 | 1.213 | 1.312 | 1.378 | 1.497 | 1.609 | 1.723 | 2.160 | 2.281 |
| 350 | 1.692 | 1.827 | 1.906 | 2.044 | 2.269 | 2.437 | 3.303 | 3.435 |
| 300 | 2.343 | 2.454 | 2.594 | 2.691 | 2.982 | 3.231 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 343.9 | 343.7 | 356.2 | 353.3 | 391.2 | 347.5 | 504.5 | 398.8 |
| 900 | 345.7 | 343.8 | 347.7 | 356.2 | 372.1 | 351.6 | 437.5 | 369.0 |
| 850 | 340.2 | 331.7 | 337.6 | 350.3 | 356.6 | 340.9 | 371.4 | 345.2 |
| 800 | 324.2 | 320.0 | 325.2 | 333.9 | 338.9 | 323.3 | 321.8 | 324.1 |
| 750 | 305.0 | 309.0 | 303.3 | 312.7 | 318.8 | 303.5 | 309.2 | 309.4 |
| 700 | 287.8 | 286.4 | 284.8 | 286.8 | 290.9 | 276.0 | 287.9 | 293.6 |
| 650 | 266.7 | 259.0 | 265.1 | 264.0 | 266.6 | 252.9 | 249.5 | 255.6 |
| 600 | 238.0 | 229.1 | 232.5 | 241.7 | 242.6 | 231.4 | 232.2 | 223.9 |
| 550 | 214.6 | 204.8 | 212.1 | 215.6 | 216.5 | 211.9 | 214.4 | 197.2 |
| 500 | 194.7 | 183.0 | 187.3 | 189.5 | 184.0 | 186.6 | 166.1 | 171.4 |
| 450 | 171.7 | 165.2 | 161.2 | 167.3 | 159.7 | 155.1 | 143.2 | 145.7 |
| 400 | 154.4 | 156.6 | 151.0 | 154.2 | 148.4 | 145.2 | 119.6 | 122.6 |
| 350 | 155.9 | 159.1 | 158.0 | 171.6 | 158.9 | 155.5 | 127.4 | 154.5 |
| 300 | 170.4 | 217.9 | 203.0 | 201.8 | 229.5 | 220.3 | | |
| LONG | -84.81 | -84.40 | -84.00 | -83.64 | -83.29 | -82.97 | -82.68 | -82.39 |
| LAT | 41.65 | 39.71 | 37.77 | 35.82 | 33.88 | 31.92 | 29.97 | 28.01 |
| QUAL | 12 | 11 | 12 | 12 | 12 | 12 | 22 | 22 |

PASS 3663 AT OTTAWA, 63 624

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 162918 |
| 1000 | 0.176 |
| 950 | 0.199 |
| 900 | 0.227 |
| 850 | 0.265 |
| 800 | 0.311 |
| 750 | 0.365 |
| 700 | 0.433 |
| 650 | 0.525 |
| 600 | 0.655 |
| 550 | 0.839 |
| 500 | 1.127 |
| 450 | 1.578 |
| 400 | 2.336 |
| 350 | 3.591 |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 380.5 |
| 900 | 350.3 |
| 850 | 327.2 |
| 800 | 311.0 |
| 750 | 302.8 |
| 700 | 274.3 |
| 650 | 239.0 |
| 600 | 216.4 |
| 550 | 192.9 |
| 500 | 167.5 |
| 450 | 142.3 |
| 400 | 119.4 |
| 350 | 128.1 |
| 300 | |

| | |
|---|---|
| LONG | -82.26 |
| LAT | 27.06 |
| QUAL | 22 |

PASS 3663 AT QUITOE, 63 624

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 163354 | 163411 | 163446 | 163521 | 163556 | 163706 | 163741 |
| 1000 | 0.293 | 0.307 | 0.336 | 0.327 | 0.292 | 0.327 | 0.326 |
| 950 | 0.330 | 0.344 | 0.373 | 0.363 | 0.330 | 0.363 | 0.360 |
| 900 | 0.374 | 0.388 | 0.417 | 0.409 | 0.374 | 0.406 | 0.401 |
| 850 | 0.433 | 0.440 | 0.469 | 0.461 | 0.425 | 0.457 | 0.448 |
| 800 | 0.505 | 0.508 | 0.539 | 0.523 | 0.487 | 0.523 | 0.509 |
| 750 | 0.597 | 0.594 | 0.630 | 0.616 | 0.575 | 0.613 | 0.599 |
| 700 | 0.709 | 0.707 | 0.751 | 0.731 | 0.682 | 0.730 | 0.714 |
| 650 | 0.855 | 0.847 | 0.898 | 0.889 | 0.836 | 0.891 | 0.874 |
| 600 | 1.068 | 1.054 | 1.115 | 1.117 | 1.044 | 1.122 | 1.078 |
| 550 | 1.388 | 1.382 | 1.460 | 1.500 | 1.417 | 1.562 | 1.461 |
| 500 | 1.917 | 1.927 | 2.041 | 2.152 | 2.056 | 2.355 | 2.237 |
| 450 | 3.006 | 3.034 | 3.228 | 3.529 | 3.448 | 3.885 | 3.852 |
| 400 | 5.113 | 5.120 | 5.261 | 5.723 | 5.613 | 5.973 | 5.834 |
| 350 | | 7.586 | 7.413 | | | | |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 396.4 | 418.2 | 453.4 | 463.3 | 394.4 | 448.1 | 479.1 |
| 900 | 360.5 | 393.7 | 423.9 | 417.3 | 386.5 | 418.8 | 441.5 |
| 850 | 338.8 | 369.4 | 395.4 | 385.2 | 361.3 | 391.0 | 404.0 |
| 800 | 317.1 | 340.2 | 342.8 | 353.0 | 335.4 | 355.0 | 363.0 |
| 750 | 297.3 | 308.9 | 301.8 | 319.9 | 306.1 | 310.7 | 316.0 |
| 700 | 277.8 | 282.6 | 284.0 | 286.8 | 276.9 | 272.2 | 272.5 |
| 650 | 252.4 | 257.9 | 266.1 | 246.4 | 241.4 | 241.4 | 244.3 |
| 600 | 216.1 | 212.6 | 214.1 | 194.6 | 202.4 | 189.7 | 212.1 |
| 550 | 179.5 | 172.3 | 171.1 | 157.1 | 151.3 | 139.9 | 144.4 |
| 500 | 135.9 | 132.9 | 130.0 | 121.7 | 115.9 | 108.3 | 98.7 |
| 450 | 96.6 | 94.6 | 99.9 | 95.5 | 93.9 | 102.8 | 101.8 |
| 400 | 97.8 | 98.7 | 104.0 | 132.9 | 147.7 | 149.4 | 172.0 |
| 350 | | 359.6 | 521.4 | | | | |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -80.48 | -80.39 | -80.20 | -80.01 | -79.82 | -79.46 | -79.28 |
| LAT | 11.62 | 10.66 | 8.70 | 6.73 | 4.76 | 0.83 | -1.13 |
| QUAL | 22 | 21 | 21 | 23 | 23 | 23 | 23 |

PASS 3063 AT QUITOE, 63 624

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 163851 | 163926 | 164001 | 164036 | 164126 | 164204 |
| 1000 | 0.328 | 0.321 | 0.295 | 0.272 | 0.277 | 0.279 |
| 950 | 0.357 | 0.350 | 0.317 | 0.292 | 0.295 | 0.293 |
| 900 | 0.392 | 0.382 | 0.344 | 0.316 | 0.318 | 0.318 |
| 850 | 0.435 | 0.423 | 0.380 | 0.350 | 0.353 | 0.355 |
| 800 | 0.494 | 0.473 | 0.428 | 0.399 | 0.401 | 0.395 |
| 750 | 0.568 | 0.546 | 0.497 | 0.465 | 0.462 | 0.441 |
| 700 | 0.681 | 0.652 | 0.583 | 0.548 | 0.564 | 0.527 |
| 650 | 0.823 | 0.833 | 0.770 | 0.722 | 0.740 | 0.710 |
| 600 | 1.070 | 1.148 | 1.069 | 1.024 | 0.998 | 0.921 |
| 550 | 1.658 | 1.740 | 1.600 | 1.535 | 1.477 | 1.370 |
| 500 | 2.579 | 2.676 | 2.454 | 2.313 | 2.183 | 2.063 |
| 450 | | 3.813 | 3.436 | 3.154 | 3.029 | 3.006 |
| 400 | | | | 3.667 | | 4.020 |
| 350 | | | | | | 4.681 |
| 300 | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | |
|---|---|---|---|---|---|---|
| 950 | 540.9 | 567.1 | 624.2 | 653.9 | 700.9 | 835.1 |
| 900 | 491.9 | 516.3 | 564.4 | 572.7 | 587.7 | 600.7 |
| 850 | 440.5 | 460.4 | 454.1 | 432.6 | 445.9 | 451.8 |
| 800 | 379.2 | 404.2 | 372.7 | 351.7 | 368.0 | 404.8 |
| 750 | 319.2 | 327.4 | 320.2 | 307.2 | 311.0 | 357.8 |
| 700 | 278.5 | 254.4 | 267.7 | 262.8 | 242.5 | 263.7 |
| 650 | 237.7 | 189.7 | 193.3 | 196.2 | 177.6 | 167.9 |
| 600 | 169.0 | 145.2 | 141.6 | 136.3 | 149.4 | 160.9 |
| 550 | 106.9 | 115.4 | 119.5 | 121.7 | 128.1 | 121.5 |
| 500 | 116.9 | 124.2 | 131.2 | 141.8 | 139.7 | 126.9 |
| 450 | | 187.2 | 217.5 | 252.2 | 181.1 | 149.0 |
| 400 | | | | 523.4 | | 212.3 |
| 350 | | | | | | 361.2 |
| 300 | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| LONG | -78.91 | -78.72 | -78.53 | -78.34 | -78.06 | -77.84 |
| LAT | -5.05 | -7.02 | -8.99 | -10.95 | -13.75 | -15.87 |
| QUAL | 13 | 13 | 11 | 12 | 13 | 23 |

PASS 3663 AT AGASTA, 63 624

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 164337 | 164413 |
| 1000 | 0.217 | 0.211 |
| 950 | 0.241 | 0.237 |
| 900 | 0.266 | 0.259 |
| 850 | 0.285 | 0.283 |
| 800 | 0.304 | 0.309 |
| 750 | 0.335 | 0.339 |
| 700 | 0.394 | 0.378 |
| 650 | 0.495 | 0.440 |
| 600 | 0.682 | 0.517 |
| 550 | 1.016 | 0.750 |
| 500 | 1.710 | 1.228 |
| 450 | 3.240 | 2.596 |
| 400 | 5.497 | 4.912 |
| 350 | | 7.195 |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 498.8 | 511.9 |
| 900 | 616.8 | 561.1 |
| 850 | 670.6 | 556.1 |
| 800 | 584.8 | 517.6 |
| 750 | 469.5 | 462.7 |
| 700 | 315.6 | 400.7 |
| 650 | 202.8 | 328.5 |
| 600 | 146.3 | 256.3 |
| 550 | 116.9 | 138.4 |
| 500 | 83.2 | 90.8 |
| 450 | 80.5 | 69.7 |
| 400 | 123.9 | 104.5 |
| 350 | | 152.2 |
| 300 | | |

| | | |
|---|---|---|
| LONG | -77.26 | -77.02 |
| LAT | -21.09 | -23.10 |
| QUAL | 23 | 23 |

PASS 3676 AT RESLUT, 63 625

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 150314 | 150330 | 150349 | 150407 | 150424 | 150442 | 150516 | 150534 |
| 1000 | 0.180 | 0.198 | 0.192 | 0.225 | 0.205 | 0.394 | 0.178 | 0.170 |
| 950 | 0.196 | 0.216 | 0.205 | 0.243 | 0.219 | 0.424 | 0.195 | 0.188 |
| 900 | 0.221 | 0.234 | 0.224 | 0.264 | 0.242 | 0.454 | 0.219 | 0.209 |
| 850 | 0.249 | 0.258 | 0.247 | 0.294 | 0.267 | 0.490 | 0.247 | 0.231 |
| 800 | 0.285 | 0.292 | 0.280 | 0.339 | 0.305 | 0.541 | 0.281 | 0.258 |
| 750 | 0.331 | 0.335 | 0.323 | 0.398 | 0.353 | 0.609 | 0.326 | 0.293 |
| 700 | 0.389 | 0.388 | 0.378 | 0.470 | 0.415 | 0.692 | 0.385 | 0.342 |
| 650 | 0.462 | 0.455 | 0.448 | 0.575 | 0.501 | 0.804 | 0.461 | 0.409 |
| 600 | 0.555 | 0.542 | 0.540 | 0.711 | 0.625 | 0.949 | 0.565 | 0.493 |
| 550 | 0.674 | 0.647 | 0.654 | 0.897 | 0.782 | 1.136 | 0.697 | 0.602 |
| 500 | 0.831 | 0.793 | 0.810 | 1.146 | 0.976 | 1.367 | 0.877 | 0.750 |
| 450 | 1.035 | 0.976 | 1.015 | 1.428 | 1.199 | 1.680 | 1.108 | 0.956 |
| 400 | 1.284 | 1.194 | | | | | 1.395 | 1.214 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 504.1 | 625.0 | 661.7 | 612.7 | 641.2 | 715.3 | 495.4 | 482.4 |
| 900 | 417.6 | 557.1 | 527.9 | 531.5 | 502.9 | 672.6 | 428.1 | 483.0 |
| 850 | 395.4 | 464.9 | 455.8 | 415.6 | 430.8 | 574.2 | 394.5 | 457.5 |
| 800 | 355.6 | 394.4 | 394.0 | 345.8 | 386.1 | 467.5 | 361.9 | 413.1 |
| 750 | 328.2 | 354.9 | 339.4 | 300.7 | 341.3 | 414.5 | 318.9 | 364.9 |
| 700 | 298.6 | 321.6 | 302.0 | 269.4 | 287.2 | 371.1 | 288.4 | 319.5 |
| 650 | 276.2 | 294.2 | 277.8 | 253.2 | 256.7 | 329.8 | 263.2 | 277.2 |
| 600 | 267.1 | 283.5 | 264.2 | 237.0 | 243.1 | 292.6 | 248.8 | 259.0 |
| 550 | 254.5 | 272.9 | 252.3 | 211.4 | 234.7 | 281.6 | 234.5 | 239.9 |
| 500 | 235.7 | 256.8 | 237.9 | 214.8 | 238.5 | 283.1 | 220.6 | 219.7 |
| 450 | 232.5 | 250.4 | 226.9 | 260.8 | 250.5 | 327.8 | 218.6 | 212.7 |
| 400 | 234.9 | 281.2 | | | | | 246.9 | 213.9 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -138.39 | -133.34 | -127.36 | -122.17 | -118.01 | -113.59 | -106.39 | -103.25 |
| LAT | 80.28 | 80.05 | 79.79 | 79.42 | 78.93 | 78.40 | 77.24 | 76.54 |
| QUAL | 33 | 32 | 33 | 31 | 32 | 31 | 33 | 33 |

PASS 3676 AT RESLUT, 63 625

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 150552 | 150609 | 150642 | 150700 | 150719 | 150737 | 150754 | 150811 |
| 1000 | 0.170 | 0.194 | 0.174 | 0.153 | 0.182 | 0.209 | 0.142 | 0.208 |
| 950 | 0.187 | 0.213 | 0.194 | 0.172 | 0.201 | 0.227 | 0.155 | 0.220 |
| 900 | 0.207 | 0.232 | 0.218 | 0.191 | 0.223 | 0.248 | 0.171 | 0.236 |
| 850 | 0.230 | 0.262 | 0.247 | 0.211 | 0.248 | 0.273 | 0.192 | 0.256 |
| 800 | 0.257 | 0.300 | 0.283 | 0.236 | 0.279 | 0.304 | 0.215 | 0.283 |
| 750 | 0.291 | 0.338 | 0.328 | 0.268 | 0.320 | 0.346 | 0.242 | 0.315 |
| 700 | 0.340 | 0.392 | 0.380 | 0.311 | 0.375 | 0.402 | 0.280 | 0.361 |
| 650 | 0.406 | 0.462 | 0.444 | 0.363 | 0.451 | 0.474 | 0.326 | 0.417 |
| 600 | 0.488 | 0.555 | 0.531 | 0.425 | 0.548 | 0.566 | 0.385 | 0.489 |
| 550 | 0.603 | 0.668 | 0.640 | 0.508 | 0.678 | 0.681 | 0.465 | 0.575 |
| 500 | 0.752 | 0.821 | 0.780 | 0.613 | 0.836 | 0.831 | 0.574 | 0.683 |
| 450 | 0.937 | 1.011 | 0.954 | 0.746 | 1.047 | 1.020 | 0.713 | 0.814 |
| 400 | 1.162 | 1.265 | 1.163 | 0.905 | | 1.257 | 0.888 | |
| 350 | | | 1.390 | 1.084 | | | 1.128 | |
| 300 | | | | | | | 1.452 | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 506.1 | 573.4 | 447.6 | 464.0 | 483.1 | 575.8 | 525.3 | 780.9 |
| 900 | 486.3 | 492.1 | 410.0 | 499.8 | 477.9 | 544.1 | 469.3 | 662.3 |
| 850 | 447.8 | 429.6 | 381.0 | 463.2 | 438.8 | 490.8 | 442.1 | 548.0 |
| 800 | 408.5 | 388.6 | 359.7 | 414.6 | 396.7 | 419.9 | 420.0 | 484.5 |
| 750 | 371.6 | 366.8 | 342.6 | 371.9 | 343.5 | 355.6 | 374.7 | 424.5 |
| 700 | 309.1 | 323.9 | 320.1 | 343.6 | 286.8 | 323.0 | 348.2 | 378.7 |
| 650 | 271.2 | 293.6 | 293.6 | 318.4 | 268.1 | 296.2 | 320.7 | 335.2 |
| 600 | 252.5 | 278.6 | 281.1 | 297.0 | 251.4 | 281.2 | 281.3 | 321.0 |
| 550 | 243.0 | 263.6 | 268.7 | 279.4 | 243.0 | 266.5 | 258.6 | 306.8 |
| 500 | 235.4 | 250.2 | 259.7 | 264.8 | 234.6 | 252.6 | 246.1 | 299.9 |
| 450 | 238.0 | 237.2 | 255.0 | 265.7 | 211.5 | 244.6 | 233.4 | 300.0 |
| 400 | 245.5 | 237.7 | 268.3 | 271.2 | | 239.0 | 220.6 | |
| 350 | | | 294.2 | 301.2 | | | 207.4 | |
| 300 | | | | | | | 205.7 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -100.11 | -97.62 | -93.57 | -91.36 | -89.69 | -88.10 | -86.61 | -85.36 |
| LAT | 75.83 | 75.11 | 73.63 | 72.82 | 71.90 | 71.03 | 70.20 | 69.35 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 32 | 33 | 33 |

PASS 3676 AT RESLUT, 63 625

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 150829 | 150850 | 150903 | 150922 | 150938 | 150955 | 151012 | 151030 |
| 1000 | 0.212 | 0.325 | 0.225 | 0.171 | 0.144 | 0.167 | 0.150 | 0.119 |
| 950 | 0.227 | 0.345 | 0.241 | 0.195 | 0.167 | 0.185 | 0.173 | 0.136 |
| 900 | 0.246 | 0.371 | 0.262 | 0.212 | 0.189 | 0.207 | 0.195 | 0.162 |
| 850 | 0.276 | 0.406 | 0.289 | 0.230 | 0.210 | 0.232 | 0.219 | 0.189 |
| 800 | 0.309 | 0.448 | 0.326 | 0.250 | 0.234 | 0.262 | 0.247 | 0.218 |
| 750 | 0.356 | 0.503 | 0.370 | 0.273 | 0.274 | 0.305 | 0.284 | 0.251 |
| 700 | 0.415 | 0.575 | 0.427 | 0.326 | 0.328 | 0.360 | 0.337 | 0.298 |
| 650 | 0.490 | 0.664 | 0.503 | 0.427 | 0.395 | 0.431 | 0.403 | 0.355 |
| 600 | 0.565 | 0.773 | 0.600 | 0.533 | 0.478 | 0.522 | 0.482 | 0.426 |
| 550 | 0.704 | 0.919 | 0.719 | 0.667 | 0.575 | 0.631 | 0.574 | 0.518 |
| 500 | 0.847 | 1.122 | 0.864 | 0.906 | 0.709 | 0.779 | 0.693 | 0.636 |
| 450 | 1.030 | 1.386 | 1.059 | 1.253 | 0.899 | 0.965 | 0.863 | 0.793 |
| 400 | 1.247 | 1.713 | 1.293 | | 1.132 | 1.203 | | 0.994 |
| 350 | | 2.081 | 1.532 | | | | | 1.276 |
| 300 | | | | | | | | 1.603 |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 705.6 | 755.7 | 639.4 | | | 464.6 | | |
| 900 | 543.3 | 629.2 | 559.8 | 577.5 | 440.0 | 429.3 | 418.5 | 325.2 |
| 850 | 438.7 | 528.9 | 476.3 | 528.1 | 415.0 | 397.9 | 400.0 | 335.4 |
| 800 | 399.6 | 461.5 | 407.3 | 478.7 | 372.9 | 366.5 | 372.1 | 325.7 |
| 750 | 340.1 | 413.4 | 381.7 | 429.3 | 336.5 | 334.4 | 342.0 | 315.0 |
| 700 | 309.2 | 371.1 | 305.7 | 308.3 | 301.0 | 302.1 | 309.6 | 301.2 |
| 650 | 294.0 | 341.7 | 298.4 | 197.5 | 273.3 | 279.0 | 283.4 | 287.4 |
| 600 | 282.8 | 316.6 | 291.0 | 200.3 | 262.9 | 267.6 | 276.3 | 271.3 |
| 550 | 272.6 | 269.8 | 275.6 | 194.1 | 252.4 | 256.3 | 269.2 | 252.6 |
| 500 | 264.7 | 247.8 | 259.6 | 162.5 | 239.3 | 244.8 | 246.7 | 237.8 |
| 450 | 265.4 | 241.9 | 263.0 | 153.2 | 223.2 | 234.4 | 200.3 | 227.6 |
| 400 | 268.3 | 252.0 | 282.8 | | 214.9 | 263.6 | | 218.6 |
| 350 | | 276.0 | 367.0 | | | | | 212.5 |
| 300 | | | | | | | | 227.6 |
| LONG | -84.29 | -82.83 | -82.03 | -81.09 | -80.29 | -79.45 | -78.73 | -78.03 |
| LAT | 68.45 | 67.38 | 66.72 | 65.74 | 64.90 | 64.02 | 63.12 | 62.16 |
| QUAL | 33 | 33 | 32 | 33 | 32 | 32 | 33 | 33 |

PASS 3676 AT RESLUT, 63 625

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 151046 | 151104 | 151122 | 151140 | 151156 | 151214 | 151232 |
| 1000 | 0.118 | 0.097 | 0.108 | 0.117 | 0.092 | 0.098 | 0.093 |
| 950 | 0.136 | 0.117 | 0.122 | 0.137 | 0.111 | 0.117 | 0.115 |
| 900 | 0.158 | 0.138 | 0.141 | 0.157 | 0.131 | 0.137 | 0.137 |
| 850 | 0.185 | 0.160 | 0.164 | 0.180 | 0.152 | 0.160 | 0.160 |
| 800 | 0.211 | 0.184 | 0.190 | 0.207 | 0.178 | 0.189 | 0.186 |
| 750 | 0.246 | 0.216 | 0.223 | 0.243 | 0.210 | 0.224 | 0.216 |
| 700 | 0.290 | 0.262 | 0.268 | 0.287 | 0.252 | 0.270 | 0.257 |
| 650 | 0.341 | 0.320 | 0.323 | 0.340 | 0.303 | 0.327 | 0.308 |
| 600 | 0.409 | 0.390 | 0.388 | 0.409 | 0.363 | 0.395 | 0.367 |
| 550 | 0.509 | 0.476 | 0.490 | 0.522 | 0.460 | 0.508 | 0.464 |
| 500 | 0.629 | 0.590 | 0.613 | 0.663 | 0.591 | 0.647 | 0.598 |
| 450 | 0.790 | 0.735 | 0.769 | 0.843 | 0.765 | 0.868 | 0.800 |
| 400 | 0.992 | 0.923 | 1.017 | 1.076 | 0.989 | 1.151 | 1.099 |
| 350 | 1.270 | 1.210 | 1.312 | 1.388 | 1.280 | 1.491 | 1.499 |
| 300 | 1.609 | 1.586 | 1.775 | 1.774 | 1.637 | 1.869 | 1.933 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 900 | 339.1 | 319.8 | 343.6 | 356.6 | 309.8 | 309.6 | 300.4 |
| 850 | 344.3 | 332.5 | 327.1 | 349.2 | 316.0 | 309.5 | 327.3 |
| 800 | 326.9 | 306.1 | 309.8 | 317.3 | 298.3 | 291.7 | 312.9 |
| 750 | 314.8 | 291.0 | 294.2 | 302.0 | 283.8 | 274.9 | 298.5 |
| 700 | 302.7 | 283.6 | 281.2 | 288.8 | 273.2 | 263.5 | 284.4 |
| 650 | 290.6 | 276.3 | 268.2 | 275.6 | 262.7 | 252.0 | 270.3 |
| 600 | 275.5 | 269.0 | 255.1 | 259.4 | 252.2 | 239.3 | 256.2 |
| 550 | 254.8 | 258.0 | 234.4 | 234.2 | 230.7 | 216.6 | 227.8 |
| 500 | 234.1 | 237.7 | 213.8 | 211.7 | 205.0 | 193.8 | 193.6 |
| 450 | 222.5 | 219.9 | 204.2 | 207.5 | 197.4 | 180.3 | 170.3 |
| 400 | 213.7 | 204.4 | 199.0 | 204.5 | 196.6 | 187.7 | 162.5 |
| 350 | 210.3 | 188.3 | 195.8 | 201.5 | 199.8 | 208.8 | 181.0 |
| 300 | 240.5 | 160.7 | 400.6 | 316.0 | 215.5 | 242.0 | 244.7 |
| LONG | -77.41 | -76.75 | -76.19 | -75.63 | -75.13 | -74.66 | -74.20 |
| LAT | 61.31 | 60.36 | 59.39 | 58.42 | 57.56 | 56.59 | 55.61 |
| QUAL | 33 | 32 | 32 | 32 | 32 | 33 | 32 |

PASS 3676 AT OTTAWA, 63 625

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 151633 | 151708 | 151743 | 151818 | 151853 |
| 1000 | 0.111 | 0.111 | 0.117 | 0.137 | 0.168 |
| 950 | 0.130 | 0.129 | 0.139 | 0.159 | 0.192 |
| 900 | 0.151 | 0.150 | 0.161 | 0.183 | 0.217 |
| 850 | 0.174 | 0.174 | 0.186 | 0.211 | 0.246 |
| 800 | 0.202 | 0.202 | 0.218 | 0.246 | 0.284 |
| 750 | 0.233 | 0.237 | 0.258 | 0.288 | 0.332 |
| 700 | 0.275 | 0.281 | 0.308 | 0.344 | 0.392 |
| 650 | 0.329 | 0.343 | 0.370 | 0.416 | 0.472 |
| 600 | 0.401 | 0.421 | 0.454 | 0.509 | 0.579 |
| 550 | 0.501 | 0.522 | 0.571 | 0.646 | 0.721 |
| 500 | 0.645 | 0.671 | 0.733 | 0.834 | 0.935 |
| 450 | 0.849 | 0.898 | 0.994 | 1.115 | 1.238 |
| 400 | 1.153 | 1.226 | 1.348 | 1.515 | 1.644 |
| 350 | 1.594 | 1.662 | 1.829 | 2.053 | 2.166 |
| 300 | | 2.247 | 2.461 | 2.745 | 2.745 |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | 332.9 | 331.3 | | 346.7 | 391.3 |
| 900 | 338.5 | 333.1 | 328.9 | 343.3 | 385.0 |
| 850 | 342.7 | 328.6 | 321.0 | 331.4 | 366.5 |
| 800 | 334.8 | 322.9 | 310.0 | 318.6 | 341.9 |
| 750 | 322.8 | 295.0 | 297.1 | 305.8 | 314.1 |
| 700 | 295.8 | 270.6 | 277.3 | 277.7 | 282.2 |
| 650 | 267.5 | 257.2 | 255.2 | 251.8 | 258.8 |
| 600 | 237.5 | 245.8 | 234.0 | 228.5 | 235.4 |
| 550 | 210.9 | 224.3 | 209.6 | 207.9 | 212.3 |
| 500 | 196.1 | 190.4 | 184.3 | 188.5 | 196.2 |
| 450 | 176.0 | 174.9 | 174.3 | 172.3 | 183.0 |
| 400 | 160.5 | 167.2 | 166.7 | 167.9 | 179.2 |
| 350 | 152.1 | 168.1 | 166.5 | 166.6 | 195.3 |
| 300 | | 154.4 | 178.4 | 194.3 | 246.3 |
| LONG | -69.62 | -69.38 | -68.98 | -68.60 | -68.25 |
| LAT | 42.58 | 40.41 | 38.35 | 36.41 | 34.59 |
| QUAL | 23 | 22 | 23 | 12 | 22 |

PASS 3676 AT AGASTA, 63 625

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 153312 | 153347 | 153422 | 153457 | 153532 | 153621 | 153656 | 153731 |
| 1000 | 0.194 | 0.205 | 0.182 | 0.188 | 0.193 | 0.169 | 0.173 | 0.155 |
| 950 | 0.215 | 0.225 | 0.202 | 0.210 | 0.211 | 0.188 | 0.190 | 0.169 |
| 900 | 0.239 | 0.249 | 0.225 | 0.235 | 0.232 | 0.206 | 0.234 | 0.182 |
| 850 | 0.270 | 0.275 | 0.253 | 0.263 | 0.257 | 0.222 | 0.219 | 0.196 |
| 800 | 0.317 | 0.323 | 0.290 | 0.296 | 0.286 | 0.243 | 0.236 | 0.213 |
| 750 | 0.384 | 0.390 | 0.336 | 0.341 | 0.325 | 0.276 | 0.256 | 0.233 |
| 700 | 0.480 | 0.483 | 0.422 | 0.410 | 0.374 | 0.321 | 0.281 | 0.254 |
| 650 | 0.623 | 0.603 | 0.557 | 0.534 | 0.502 | 0.383 | 0.321 | 0.279 |
| 600 | 0.889 | 0.864 | 0.770 | 0.712 | 0.679 | 0.529 | 0.433 | 0.313 |
| 550 | 1.389 | 1.331 | 1.134 | 0.971 | 0.890 | 0.739 | 0.605 | 0.377 |
| 500 | 2.306 | 2.204 | 1.879 | 1.536 | 1.369 | 1.065 | 0.895 | 0.565 |
| 450 | 3.855 | 3.691 | 3.241 | 2.622 | 2.205 | 1.665 | 1.369 | 0.797 |
| 400 | 5.804 | 5.829 | 5.459 | 4.592 | 3.710 | 2.605 | 2.150 | 1.322 |
| 350 | 7.158 | | | 7.260 | 6.295 | 4.152 | 3.288 | 2.347 |
| 300 | | | | | 9.192 | 6.419 | 4.926 | 4.144 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 460.1 | 499.3 | 468.4 | 441.3 | 522.4 | 510.4 | 643.9 | 634.7 |
| 900 | 416.6 | 451.2 | 447.1 | 444.1 | 507.4 | 601.3 | 722.6 | 656.9 |
| 850 | 366.7 | 403.1 | 377.5 | 422.8 | 471.7 | 583.2 | 690.6 | 628.4 |
| 800 | 299.2 | 320.6 | 332.1 | 370.3 | 420.9 | 443.1 | 640.2 | 604.5 |
| 750 | 248.5 | 252.8 | 286.7 | 312.3 | 347.5 | 379.9 | 562.0 | 581.3 |
| 700 | 214.5 | 222.8 | 232.7 | 255.2 | 273.5 | 316.8 | 455.6 | 549.6 |
| 650 | 177.4 | 191.4 | 174.1 | 200.0 | 204.4 | 252.8 | 270.6 | 484.0 |
| 600 | 133.1 | 137.6 | 149.0 | 167.5 | 165.9 | 182.4 | 154.5 | 369.1 |
| 550 | 107.1 | 107.2 | 112.7 | 141.2 | 154.3 | 145.3 | 135.9 | 218.7 |
| 500 | 94.2 | 97.5 | 95.9 | 102.3 | 110.6 | 125.8 | 127.6 | 145.4 |
| 450 | 103.9 | 99.3 | 90.0 | 89.0 | 99.8 | 111.8 | 113.4 | 102.3 |
| 400 | 164.4 | 136.9 | 103.3 | 97.6 | 98.0 | 110.6 | 115.1 | 91.9 |
| 350 | 514.1 | | | 119.6 | 93.1 | 106.2 | 124.8 | 96.6 |
| 300 | | | | | 275.5 | 158.9 | 114.0 | 81.5 |
| LONG | -62.92 | -62.72 | -62.50 | -62.29 | -62.06 | -61.73 | -61.48 | -61.21 |
| LAT | -13.51 | -15.47 | -17.43 | -19.39 | -21.35 | -24.09 | -26.05 | -28.00 |
| QUAL | 33 | 33 | 33 | 33 | 23 | 23 | 33 | 33 |

PASS 3676 AT AGASTA, 63 625

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 153916 | 153951 | 154026 | 154117 |
| 1000 | 0.098 | 0.085 | 0.104 | 0.061 |
| 950 | 0.110 | 0.099 | 0.113 | 0.068 |
| 900 | 0.122 | 0.110 | 0.120 | 0.073 |
| 850 | 0.134 | 0.121 | 0.128 | 0.078 |
| 800 | 0.147 | 0.133 | 0.138 | 0.088 |
| 750 | 0.162 | 0.148 | 0.150 | 0.098 |
| 700 | 0.179 | 0.165 | 0.167 | 0.107 |
| 650 | 0.200 | 0.186 | 0.188 | 0.118 |
| 600 | 0.224 | 0.212 | 0.219 | 0.137 |
| 550 | 0.262 | 0.251 | 0.258 | 0.160 |
| 500 | 0.313 | 0.310 | 0.326 | 0.208 |
| 450 | 0.432 | 0.421 | 0.458 | 0.275 |
| 400 | 0.664 | 0.626 | 0.651 | 0.400 |
| 350 | 1.078 | 0.928 | 0.947 | 0.650 |
| 300 | 1.718 | 1.491 | 1.437 | 1.056 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 469.2 | 412.6 | 787.4 | 669.9 |
| 900 | 506.7 | 495.7 | 870.6 | 636.2 |
| 850 | 518.5 | 492.7 | 718.3 | 571.8 |
| 800 | 512.3 | 478.8 | 608.3 | 527.7 |
| 750 | 495.7 | 459.2 | 521.1 | 491.8 |
| 700 | 468.9 | 439.5 | 451.2 | 465.1 |
| 650 | 423.5 | 393.5 | 384.2 | 417.2 |
| 600 | 378.1 | 340.3 | 331.4 | 343.2 |
| 550 | 308.9 | 281.6 | 278.7 | 269.1 |
| 500 | 234.6 | 219.6 | 177.8 | 220.9 |
| 450 | 163.5 | 164.1 | 144.5 | 176.4 |
| 400 | 113.3 | 127.2 | 137.8 | 134.1 |
| 350 | 108.1 | 121.3 | 132.0 | 105.0 |
| 300 | 98.6 | 94.3 | 107.0 | 86.8 |
| LONG | -60.31 | -59.98 | -59.61 | -59.03 |
| LAT | -33.84 | -35.78 | -37.72 | -40.55 |
| QUAL | 33 | 33 | 33 | 33 |

PASS 3697 AT RESLUT, 63 627

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 35244 | 35302 | 35316 | 35337 | 35358 | 35429 | 35446 | 35503 |
| 1000 | 0.099 | 0.124 | 0.132 | 0.135 | 0.151 | 0.165 | 0.159 | 0.147 |
| 950 | 0.119 | 0.145 | 0.162 | 0.160 | 0.181 | 0.194 | 0.185 | 0.172 |
| 900 | 0.139 | 0.172 | 0.194 | 0.185 | 0.212 | 0.229 | 0.214 | 0.200 |
| 850 | 0.165 | 0.205 | 0.229 | 0.214 | 0.248 | 0.270 | 0.247 | 0.231 |
| 800 | 0.198 | 0.246 | 0.269 | 0.249 | 0.293 | 0.319 | 0.288 | 0.267 |
| 750 | 0.240 | 0.300 | 0.321 | 0.293 | 0.353 | 0.382 | 0.340 | 0.308 |
| 700 | 0.287 | 0.366 | 0.384 | 0.350 | 0.424 | 0.471 | 0.401 | 0.363 |
| 650 | 0.340 | 0.461 | 0.488 | 0.425 | 0.539 | 0.611 | 0.498 | 0.446 |
| 600 | 0.402 | 0.613 | 0.643 | 0.539 | 0.686 | 0.801 | 0.629 | 0.563 |
| 550 | 0.523 | 0.813 | 0.839 | 0.688 | 0.901 | 1.060 | 0.795 | 0.716 |
| 500 | 0.676 | 1.087 | 1.088 | 0.893 | 1.186 | 1.402 | 1.013 | 0.926 |
| 450 | 0.901 | 1.476 | | 1.155 | 1.573 | | 1.331 | 1.192 |
| 400 | 1.258 | | | 1.450 | | | | 1.451 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | |
| 900 | 312.2 | 287.4 | 288.0 | 341.4 | 312.5 | 305.1 | 343.0 | 342.5 |
| 850 | 293.0 | 273.1 | 294.0 | 331.0 | 297.7 | 296.1 | 323.0 | 341.2 |
| 800 | 278.1 | 258.7 | 283.2 | 316.0 | 280.8 | 276.6 | 305.6 | 329.5 |
| 750 | 266.2 | 244.3 | 264.8 | 298.5 | 262.4 | 252.3 | 288.6 | 317.9 |
| 700 | 260.7 | 229.9 | 246.3 | 270.0 | 244.0 | 228.4 | 271.6 | 278.9 |
| 650 | 255.2 | 213.6 | 222.6 | 229.4 | 223.7 | 204.8 | 251.9 | 227.2 |
| 600 | 248.7 | 194.3 | 195.9 | 217.9 | 203.2 | 186.8 | 231.2 | 217.4 |
| 550 | 220.6 | 178.0 | 191.0 | 206.4 | 188.7 | 179.5 | 212.4 | 208.2 |
| 500 | 192.5 | 168.3 | 188.7 | 199.2 | 176.5 | 200.0 | 197.2 | 201.8 |
| 450 | 166.8 | 282.0 | | 212.9 | 646.7 | | 188.5 | 234.7 |
| 400 | 181.9 | | | 395.4 | | | | 380.4 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -49.39 | -48.35 | -47.32 | -45.77 | -44.23 | -41.15 | -39.43 | -37.59 |
| LAT | 67.35 | 68.28 | 68.98 | 70.02 | 71.07 | 72.54 | 73.34 | 74.13 |
| QUAL | 32 | 32 | 33 | 32 | 32 | 32 | 33 | 32 |

PASS 3697 AT RESLUT, 63 627

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 35521 | 35539 | 35556 | 35631 | 35648 | 35706 | 35724 | 35741 |
| 1000 | 0.118 | 0.110 | 0.147 | 0.159 | 0.165 | 0.159 | 0.200 | 0.160 |
| 950 | 0.140 | 0.132 | 0.171 | 0.193 | 0.195 | 0.200 | 0.226 | 0.191 |
| 900 | 0.164 | 0.156 | 0.200 | 0.226 | 0.224 | 0.234 | 0.246 | 0.222 |
| 850 | 0.192 | 0.181 | 0.231 | 0.262 | 0.257 | 0.263 | 0.269 | 0.254 |
| 800 | 0.225 | 0.211 | 0.267 | 0.303 | 0.296 | 0.298 | 0.299 | 0.292 |
| 750 | 0.262 | 0.249 | 0.313 | 0.351 | 0.342 | 0.339 | 0.340 | 0.338 |
| 700 | 0.312 | 0.293 | 0.366 | 0.414 | 0.400 | 0.391 | 0.409 | 0.400 |
| 650 | 0.377 | 0.357 | 0.443 | 0.507 | 0.474 | 0.473 | 0.502 | |
| 600 | 0.465 | 0.443 | 0.545 | 0.631 | 0.569 | 0.582 | 0.623 | |
| 550 | 0.564 | 0.571 | 0.668 | 0.793 | 0.693 | 0.726 | 0.795 | |
| 500 | 0.745 | 0.741 | 0.858 | 1.000 | 0.892 | 0.942 | 1.047 | |
| 450 | 0.996 | 0.972 | 1.096 | 1.279 | 1.152 | 1.224 | 1.341 | |
| 400 | 1.289 | 1.253 | 1.378 | 1.597 | 1.432 | 1.527 | 1.715 | |
| 350 | 1.634 | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 323.9 | 295.4 | 314.2 | 290.9 | 347.9 | 268.7 | 525.4 | 306.3 |
| 900 | 318.4 | 316.0 | 335.9 | 321.2 | 359.6 | 377.1 | 555.5 | 348.6 |
| 850 | 318.0 | 315.5 | 330.0 | 334.8 | 356.8 | 400.2 | 495.1 | 352.4 |
| 800 | 310.2 | 310.5 | 319.0 | 340.6 | 346.8 | 376.9 | 433.0 | 339.7 |
| 750 | 297.6 | 297.3 | 304.0 | 321.6 | 332.0 | 351.8 | 362.6 | 320.9 |
| 700 | 277.4 | 284.1 | 288.9 | 262.3 | 303.1 | 320.8 | 271.6 | 280.8 |
| 650 | 254.9 | 247.2 | 270.5 | 246.7 | 279.4 | 271.0 | 238.3 | |
| 600 | 234.9 | 217.7 | 250.5 | 234.4 | 259.2 | 235.0 | 222.6 | |
| 550 | 216.6 | 204.7 | 230.6 | 222.3 | 237.4 | 214.0 | 204.8 | |
| 500 | 198.8 | 195.1 | 212.6 | 212.9 | 209.6 | 193.7 | 191.9 | |
| 450 | 185.5 | 192.2 | 216.3 | 216.1 | 222.6 | 214.1 | 202.6 | |
| 400 | 217.9 | 200.6 | 237.3 | 248.6 | 292.7 | 257.9 | 198.7 | |
| 350 | 893.7 | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -35.03 | -32.48 | -30.06 | -23.21 | -19.77 | -15.67 | -10.68 | -5.96 |
| LAT | 74.90 | 75.67 | 76.40 | 77.68 | 78.28 | 78.85 | 79.27 | 79.67 |
| QUAL | 32 | 33 | 32 | 33 | 32 | 33 | 33 | 33 |

PASS 3697 AT RESLUT, 63 627

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 35757 | 35828 | 35846 | 35903 | 35921 | 35938 | 40013 | 40030 |
| 1000 | 0.218 | 0.217 | 0.171 | 0.204 | 0.218 | 0.191 | 0.248 | 0.229 |
| 950 | 0.253 | 0.250 | 0.197 | 0.228 | 0.246 | 0.215 | 0.274 | 0.250 |
| 900 | 0.285 | 0.280 | 0.218 | 0.251 | 0.270 | 0.241 | 0.305 | 0.273 |
| 850 | 0.325 | 0.316 | 0.242 | 0.279 | 0.298 | 0.267 | 0.340 | 0.302 |
| 800 | 0.376 | 0.359 | 0.276 | 0.313 | 0.333 | 0.296 | 0.380 | 0.346 |
| 750 | 0.443 | 0.424 | 0.318 | 0.361 | 0.381 | 0.334 | 0.431 | 0.400 |
| 700 | 0.538 | 0.506 | 0.368 | 0.425 | 0.441 | 0.388 | 0.492 | 0.456 |
| 650 | 0.658 | 0.605 | 0.439 | 0.512 | 0.520 | 0.458 | 0.568 | 0.524 |
| 600 | 0.848 | 0.730 | 0.556 | 0.621 | 0.614 | 0.545 | 0.669 | 0.627 |
| 550 | 1.113 | 0.944 | 0.707 | 0.768 | 0.742 | 0.649 | 0.799 | 0.760 |
| 500 | 1.459 | 1.215 | 0.910 | 0.966 | 0.931 | 0.809 | 0.968 | 0.933 |
| 450 | 1.889 | 1.520 | 1.185 | 1.253 | 1.175 | | 1.200 | 1.173 |
| 400 | | | 1.556 | | 1.492 | | 1.540 | 1.462 |
| 350 | | | | | | | 2.048 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 424.1 | 406.8 | 485.9 | 538.5 | 552.3 | 434.2 | 476.7 | 566.9 |
| 900 | 393.6 | 413.3 | 472.3 | 495.3 | 515.0 | 462.3 | 463.3 | 505.5 |
| 850 | 365.1 | 387.2 | 426.3 | 445.5 | 464.7 | 458.5 | 444.3 | 443.5 |
| 800 | 324.2 | 352.4 | 368.8 | 396.2 | 411.1 | 425.5 | 412.6 | 399.0 |
| 750 | 275.5 | 290.4 | 333.2 | 335.9 | 364.2 | 384.0 | 388.0 | 365.0 |
| 700 | 253.5 | 273.2 | 301.1 | 284.1 | 322.3 | 331.3 | 364.3 | 346.0 |
| 650 | 231.5 | 259.9 | 269.3 | 269.7 | 302.3 | 297.3 | 336.3 | 322.0 |
| 600 | 204.1 | 242.5 | 238.1 | 255.2 | 282.2 | 280.4 | 301.9 | 285.6 |
| 550 | 187.3 | 201.7 | 209.6 | 235.2 | 257.8 | 263.5 | 273.5 | 255.8 |
| 500 | 191.0 | 217.5 | 198.2 | 210.9 | 227.1 | 209.5 | 246.4 | 236.4 |
| 450 | 403.2 | 252.9 | 211.7 | 209.4 | 215.9 | | 217.2 | 223.2 |
| 400 | | | 1188.4 | | 159.7 | | 192.3 | 313.2 |
| 350 | | | | | | | 208.5 | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -1.51 | 8.62 | 14.60 | 20.35 | 26.93 | 33.15 | 44.67 | 49.20 |
| LAT | 80.05 | 80.29 | 80.40 | 80.44 | 80.14 | 79.86 | 79.00 | 78.35 |
| QUAL | 32 | 33 | 32 | 33 | 32 | 33 | 32 | 32 |

PASS 3697 AT RESLUT, 63 627

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 40048 | 40123 |
| 1000 | 0.194 | 0.210 |
| 950 | 0.230 | 0.242 |
| 900 | 0.258 | 0.274 |
| 850 | 0.288 | 0.314 |
| 800 | 0.328 | 0.362 |
| 750 | 0.379 | 0.425 |
| 700 | 0.446 | 0.506 |
| 650 | 0.539 | 0.608 |
| 600 | 0.657 | 0.731 |
| 550 | 0.815 | 0.933 |
| 500 | 1.015 | 1.223 |
| 450 | 1.316 | 1.599 |
| 400 | 1.696 | 2.090 |
| 350 | | 2.786 |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 401.2 | 379.3 |
| 900 | 433.5 | 374.5 |
| 850 | 408.0 | 355.3 |
| 800 | 371.5 | 329.5 |
| 750 | 330.5 | 297.6 |
| 700 | 281.0 | 279.6 |
| 650 | 264.4 | 264.8 |
| 600 | 248.9 | 248.1 |
| 550 | 231.6 | 203.3 |
| 500 | 214.2 | 189.8 |
| 450 | 200.8 | 187.9 |
| 400 | 697.4 | 179.3 |
| 350 | | 358.1 |
| 300 | | |

| | | |
|---|---|---|
| LONG | 54.00 | 57.97 |
| LAT | 77.66 | 76.82 |
| QUAL | 32 | 32 |

PASS 3700 AT COLEGE, 63 627

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 90317 | 90434 | 90502 | 90537 | 90612 | 90647 |
| 1000 | 0.042 | 0.017 | 0.004 | 0.036 | 0.039 | 0.093 |
| 950 | 0.045 | 0.019 | 0.005 | 0.044 | 0.048 | 0.102 |
| 900 | 0.048 | 0.021 | 0.006 | 0.051 | 0.058 | 0.116 |
| 850 | 0.052 | 0.024 | 0.008 | 0.058 | 0.072 | 0.133 |
| 800 | 0.057 | 0.027 | 0.011 | 0.068 | 0.088 | 0.153 |
| 750 | 0.065 | 0.033 | 0.014 | 0.081 | 0.108 | 0.177 |
| 700 | 0.076 | 0.039 | 0.018 | 0.096 | 0.131 | 0.204 |
| 650 | 0.093 | 0.051 | 0.023 | 0.115 | 0.165 | 0.244 |
| 600 | 0.117 | 0.066 | 0.029 | 0.137 | 0.212 | 0.293 |
| 550 | 0.147 | 0.086 | 0.039 | 0.166 | 0.271 | 0.355 |
| 500 | 0.208 | 0.118 | 0.057 | 0.214 | 0.357 | 0.440 |
| 450 | 0.299 | 0.161 | 0.079 | 0.271 | 0.476 | 0.542 |
| 400 | 0.434 | 0.221 | 0.104 | 0.337 | 0.628 | 0.677 |
| 350 | 0.632 | 0.323 | 0.136 | 0.452 | 0.825 | 0.849 |
| 300 | 0.890 | 0.438 | 0.195 | 0.608 | 1.017 | 1.037 |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 1041.6 | 460.2 | | | 247.7 | 470.1 |
| 900 | 686.3 | 431.1 | 186.9 | 348.5 | 251.2 | 392.4 |
| 850 | 557.6 | 377.7 | 199.0 | 319.5 | 249.4 | 368.4 |
| 800 | 468.5 | 313.0 | 197.3 | 297.2 | 247.1 | 347.3 |
| 750 | 382.7 | 270.8 | 194.4 | 290.2 | 238.0 | 329.5 |
| 700 | 303.6 | 230.1 | 190.9 | 283.2 | 228.9 | 311.6 |
| 650 | 243.6 | 215.5 | 187.4 | 276.2 | 219.0 | 291.8 |
| 600 | 216.4 | 201.0 | 183.8 | 269.1 | 208.5 | 272.1 |
| 550 | 189.1 | 186.5 | 180.8 | 258.8 | 197.9 | 255.9 |
| 500 | 167.5 | 174.4 | 178.4 | 239.9 | 191.2 | 246.8 |
| 450 | 147.8 | 162.9 | 175.9 | 221.1 | 186.6 | 237.7 |
| 400 | 140.4 | 152.2 | 173.4 | 202.2 | 191.2 | 239.3 |
| 350 | 143.6 | 145.1 | 170.3 | 176.5 | 212.5 | 247.1 |
| 300 | 101.9 | 247.4 | 162.5 | 148.8 | 480.6 | 271.6 |
| LONG | -140.48 | -139.03 | -138.45 | -137.59 | -136.67 | -135.61 |
| LAT | 47.92 | 52.15 | 53.69 | 55.59 | 57.49 | 59.38 |
| QUAL | 21 | 12 | 21 | 33 | 32 | 33 |

PASS 3700 AT COLEGE, 63 627

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 90832 | 90907 | 90942 | 91017 | 91052 | 91127 | 91202 |
| 1000 | 0.085 | 0.076 | 0.093 | 0.090 | 0.123 | 0.092 | 0.100 |
| 950 | 0.098 | 0.089 | 0.106 | 0.103 | 0.133 | 0.106 | 0.115 |
| 900 | 0.111 | 0.104 | 0.122 | 0.118 | 0.146 | 0.125 | 0.133 |
| 850 | 0.128 | 0.123 | 0.140 | 0.137 | 0.166 | 0.144 | 0.156 |
| 800 | 0.147 | 0.144 | 0.162 | 0.159 | 0.190 | 0.167 | 0.182 |
| 750 | 0.169 | 0.168 | 0.186 | 0.185 | 0.218 | 0.195 | 0.210 |
| 700 | 0.195 | 0.198 | 0.213 | 0.217 | 0.256 | 0.228 | 0.249 |
| 650 | 0.230 | 0.236 | 0.248 | 0.261 | 0.315 | 0.282 | 0.298 |
| 600 | 0.274 | 0.289 | 0.289 | 0.315 | 0.387 | 0.349 | 0.361 |
| 550 | 0.337 | 0.354 | 0.349 | 0.390 | 0.480 | 0.434 | 0.455 |
| 500 | 0.417 | 0.448 | 0.425 | 0.485 | 0.593 | 0.548 | 0.571 |
| 450 | 0.513 | 0.584 | 0.515 | 0.599 | 0.725 | 0.684 | 0.722 |
| 400 | 0.650 | 0.752 | 0.676 | 0.758 | 0.893 | 0.866 | 0.914 |
| 350 | 0.861 | 1.020 | 0.878 | 0.954 | 1.096 | 1.099 | 1.168 |
| 300 | 1.239 | 1.348 | 1.111 | 1.181 | | 1.360 | 1.472 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 370.3 | 308.6 | 373.7 | 369.8 | 580.4 | 458.3 | 356.8 |
| 900 | 372.7 | 309.7 | 359.0 | 349.6 | 476.5 | 345.0 | 335.3 |
| 850 | 363.1 | 311.1 | 357.1 | 341.0 | 387.6 | 330.7 | 334.3 |
| 800 | 353.2 | 311.6 | 355.1 | 327.8 | 357.5 | 315.4 | 323.6 |
| 750 | 342.5 | 310.2 | 352.8 | 310.7 | 327.4 | 300.0 | 306.4 |
| 700 | 325.7 | 286.9 | 349.5 | 292.8 | 298.9 | 284.7 | 287.0 |
| 650 | 289.0 | 264.9 | 318.3 | 273.7 | 273.4 | 263.7 | 267.3 |
| 600 | 261.4 | 247.8 | 288.7 | 254.5 | 247.9 | 242.5 | 249.5 |
| 550 | 251.3 | 230.6 | 270.0 | 244.5 | 242.5 | 227.7 | 238.0 |
| 500 | 241.3 | 215.0 | 251.3 | 237.3 | 245.1 | 224.0 | 226.5 |
| 450 | 231.3 | 200.9 | 232.6 | 230.2 | 247.7 | 220.3 | 216.6 |
| 400 | 209.3 | 186.7 | 217.8 | 229.6 | 252.3 | 230.5 | 207.9 |
| 350 | 170.6 | 187.3 | 203.2 | 230.0 | 280.9 | 247.4 | 224.1 |
| 300 | 246.0 | 364.6 | 190.4 | 282.6 | | 295.3 | 275.6 |
| LONG | -131.44 | -129.67 | -127.49 | -124.94 | -122.01 | -118.20 | -114.03 |
| LAT | 64.94 | 66.76 | 68.54 | 70.29 | 72.00 | 73.62 | 75.20 |
| QUAL | 21 | 32 | 31 | 22 | 33 | 22 | 32 |

PASS 3700 AT COLEGE, 63 627

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 91219 | 91313 | 91348 | 91423 | 91458 | 91533 | 91608 |
| 1000 | 0.097 | 0.126 | 0.105 | 0.152 | 0.114 | 0.143 | 0.133 |
| 950 | 0.112 | 0.141 | 0.120 | 0.171 | 0.129 | 0.161 | 0.148 |
| 900 | 0.128 | 0.160 | 0.139 | 0.192 | 0.148 | 0.182 | 0.168 |
| 850 | 0.148 | 0.181 | 0.159 | 0.217 | 0.171 | 0.205 | 0.189 |
| 800 | 0.171 | 0.207 | 0.182 | 0.246 | 0.198 | 0.233 | 0.215 |
| 750 | 0.199 | 0.237 | 0.211 | 0.289 | 0.229 | 0.265 | 0.246 |
| 700 | 0.237 | 0.278 | 0.247 | 0.343 | 0.271 | 0.310 | 0.288 |
| 650 | 0.286 | 0.331 | 0.297 | 0.411 | 0.326 | 0.367 | 0.338 |
| 600 | 0.353 | 0.403 | 0.358 | 0.501 | 0.399 | 0.436 | 0.410 |
| 550 | 0.441 | 0.493 | 0.451 | 0.609 | 0.500 | 0.540 | 0.501 |
| 500 | 0.560 | 0.632 | 0.573 | 0.749 | 0.624 | 0.667 | 0.610 |
| 450 | 0.728 | 0.806 | 0.730 | 0.939 | 0.795 | 0.831 | 0.736 |
| 400 | 0.944 | 1.034 | 0.943 | 1.152 | 0.998 | 1.047 | |
| 350 | 1.188 | 1.321 | 1.212 | 1.355 | 1.159 | 1.218 | |
| 300 | | 1.601 | 1.537 | 1.549 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 355.4 | 435.4 | 387.3 | 423.0 | 387.6 | 411.4 | 440.2 |
| 900 | 352.7 | 404.4 | 363.8 | 414.0 | 363.2 | 412.7 | 411.1 |
| 850 | 344.1 | 384.6 | 363.4 | 385.1 | 349.2 | 400.4 | 402.4 |
| 800 | 326.9 | 363.4 | 344.7 | 343.6 | 331.8 | 373.1 | 373.0 |
| 750 | 306.2 | 337.5 | 320.3 | 317.9 | 312.1 | 343.7 | 338.3 |
| 700 | 280.8 | 302.3 | 295.4 | 292.5 | 288.3 | 318.5 | 310.5 |
| 650 | 254.7 | 273.3 | 269.3 | 273.0 | 261.3 | 294.1 | 282.8 |
| 600 | 239.0 | 251.2 | 243.1 | 262.7 | 241.5 | 270.1 | 262.9 |
| 550 | 225.7 | 230.6 | 229.4 | 252.4 | 233.1 | 256.0 | 244.6 |
| 500 | 204.8 | 220.8 | 218.3 | 250.7 | 224.6 | 241.8 | 226.4 |
| 450 | 194.5 | 211.0 | 208.7 | 260.6 | 225.6 | 244.0 | 208.1 |
| 400 | 206.9 | 216.4 | 203.1 | 282.0 | 284.2 | 277.4 | |
| 350 | 228.3 | 228.3 | 205.6 | 342.6 | 463.7 | 399.4 | |
| 300 | | 501.1 | 372.8 | 488.8 | | | |
| LONG | -111.22 | -101.39 | -93.21 | -83.36 | -72.64 | -60.97 | -49.59 |
| LAT | 75.89 | 77.95 | 79.04 | 79.80 | 80.39 | 80.35 | 80.13 |
| QUAL | 23 | 22 | 22 | 32 | 32 | 32 | 33 |

PASS 3717 AT RESLUT, 63 628

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 151116 | 151133 | 151151 | 151206 | 151226 | 151242 | 151300 | 151317 |
| 1000 | 0.205 | 0.144 | 0.237 | 0.172 | 0.183 | 0.280 | 0.172 | 0.193 |
| 950 | 0.236 | 0.168 | 0.264 | 0.205 | 0.212 | 0.317 | 0.202 | 0.221 |
| 900 | 0.266 | 0.195 | 0.300 | 0.237 | 0.241 | 0.358 | 0.228 | 0.245 |
| 850 | 0.298 | 0.225 | 0.347 | 0.269 | 0.271 | 0.404 | 0.255 | 0.273 |
| 800 | 0.340 | 0.262 | 0.399 | 0.309 | 0.311 | 0.455 | 0.292 | 0.310 |
| 750 | 0.392 | 0.307 | 0.453 | 0.362 | 0.361 | 0.515 | 0.337 | 0.356 |
| 700 | 0.464 | 0.365 | 0.527 | 0.432 | 0.428 | 0.589 | 0.396 | 0.412 |
| 650 | 0.554 | 0.442 | 0.616 | 0.527 | 0.523 | 0.676 | 0.472 | 0.493 |
| 600 | 0.660 | 0.548 | 0.750 | 0.644 | 0.638 | 0.813 | 0.566 | 0.595 |
| 550 | 0.829 | 0.686 | 0.954 | 0.823 | 0.800 | 0.995 | 0.692 | 0.729 |
| 500 | 1.050 | 0.875 | 1.246 | 1.065 | 1.003 | 1.245 | 0.866 | 0.904 |
| 450 | 1.333 | 1.126 | 1.625 | 1.388 | 1.291 | 1.574 | 1.109 | 1.127 |
| 400 | 1.693 | | 2.062 | | 1.674 | 1.984 | 1.453 | 1.495 |
| 350 | 2.153 | | | | | 2.374 | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 392.4 | 334.2 | 433.4 | | 370.0 | 406.7 | | 452.3 |
| 900 | 415.3 | 339.5 | 383.1 | 369.0 | 393.2 | 412.1 | 412.3 | 453.9 |
| 850 | 394.8 | 333.8 | 370.2 | 366.6 | 374.0 | 415.2 | 395.2 | 424.8 |
| 800 | 358.8 | 321.2 | 364.4 | 340.2 | 344.5 | 400.8 | 367.5 | 394.8 |
| 750 | 322.8 | 304.9 | 345.2 | 299.2 | 315.0 | 377.0 | 334.4 | 353.8 |
| 700 | 302.9 | 270.4 | 319.0 | 260.4 | 289.0 | 348.4 | 291.0 | 299.0 |
| 650 | 283.3 | 248.4 | 292.8 | 248.0 | 266.4 | 319.8 | 278.9 | 283.1 |
| 600 | 263.7 | 235.3 | 253.2 | 235.5 | 243.8 | 283.1 | 266.9 | 267.1 |
| 550 | 232.6 | 222.0 | 200.2 | 210.5 | 228.6 | 244.7 | 242.6 | 251.3 |
| 500 | 212.1 | 208.4 | 191.6 | 195.2 | 214.1 | 224.9 | 213.4 | 235.7 |
| 450 | 212.1 | 189.7 | 202.4 | 194.6 | 199.0 | 221.0 | 197.8 | 198.9 |
| 400 | 215.5 | | 226.5 | | 185.7 | 250.0 | 190.0 | 466.8 |
| 350 | 563.8 | | | | | 360.1 | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -121.00 | -117.39 | -113.57 | -110.77 | -107.79 | -105.41 | -102.73 | -100.94 |
| LAT | 78.40 | 77.82 | 77.20 | 76.64 | 75.79 | 75.12 | 74.36 | 73.57 |
| QUAL | 32 | 33 | 32 | 33 | 33 | 32 | 33 | 32 |

PASS 3717 AT RESLUT, 63 628

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 151335 | 151352 | 151410 | 151428 | 151446 | 151503 | 151521 | 151538 |
| 1000 | 0.247 | 0.215 | 0.233 | 0.226 | 0.227 | 0.218 | 0.340 | 0.235 |
| 950 | 0.282 | 0.242 | 0.260 | 0.247 | 0.260 | 0.248 | 0.379 | 0.276 |
| 900 | 0.322 | 0.272 | 0.292 | 0.277 | 0.301 | 0.279 | 0.423 | 0.318 |
| 850 | 0.369 | 0.316 | 0.332 | 0.320 | 0.352 | 0.324 | 0.472 | 0.368 |
| 800 | 0.424 | 0.370 | 0.380 | 0.374 | 0.411 | 0.379 | 0.535 | 0.429 |
| 750 | 0.488 | 0.435 | 0.438 | 0.434 | 0.484 | 0.445 | 0.609 | 0.500 |
| 700 | 0.564 | 0.513 | 0.508 | 0.504 | 0.569 | 0.531 | 0.696 | 0.587 |
| 650 | 0.651 | 0.601 | 0.588 | 0.585 | 0.677 | 0.631 | 0.830 | 0.694 |
| 600 | 0.778 | 0.702 | 0.700 | 0.712 | 0.831 | 0.746 | 0.996 | 0.818 |
| 550 | 0.933 | 0.844 | 0.855 | 0.866 | 1.024 | 0.904 | 1.188 | 0.960 |
| 500 | 1.117 | 1.032 | 1.041 | 1.073 | 1.271 | 1.148 | 1.403 | 1.213 |
| 450 | 1.343 | 1.261 | 1.264 | 1.330 | 1.563 | 1.437 | 1.680 | 1.523 |
| 400 | 1.608 | 1.528 | 1.550 | 1.620 | 1.864 | | | 1.904 |
| 350 | | | | | | | | 2.253 |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 367.3 | 378.0 | 417.0 | 472.2 | 345.8 | 367.6 | 451.4 | 315.0 |
| 900 | 364.5 | 370.0 | 401.6 | 425.3 | 331.8 | 358.7 | 437.1 | 326.1 |
| 850 | 361.7 | 349.2 | 384.8 | 377.1 | 324.7 | 340.0 | 414.9 | 327.1 |
| 800 | 358.9 | 328.5 | 368.0 | 342.4 | 317.6 | 321.3 | 389.1 | 321.8 |
| 750 | 346.9 | 316.5 | 349.9 | 329.4 | 304.4 | 304.5 | 362.8 | 316.5 |
| 700 | 330.5 | 310.3 | 331.3 | 316.4 | 290.9 | 294.0 | 336.4 | 307.5 |
| 650 | 314.5 | 304.0 | 312.6 | 302.4 | 275.1 | 283.4 | 317.1 | 295.4 |
| 600 | 304.0 | 297.8 | 292.8 | 276.2 | 255.1 | 272.8 | 298.2 | 283.3 |
| 550 | 293.6 | 282.3 | 271.9 | 250.0 | 241.5 | 257.6 | 290.5 | 271.1 |
| 500 | 279.1 | 261.6 | 257.8 | 246.0 | 239.7 | 234.9 | 289.6 | 247.8 |
| 450 | 280.2 | 251.7 | 252.7 | 246.7 | 253.5 | 266.3 | 292.3 | 227.9 |
| 400 | 323.6 | 294.2 | 255.3 | 325.3 | 603.6 | | | 254.3 |
| 350 | | | | | | | | 385.2 |
| 300 | | | | | | | | |
| LONG | -99.04 | -97.24 | -95.63 | -94.25 | -92.87 | -91.63 | -90.59 | -89.61 |
| LAT | 72.73 | 71.93 | 71.06 | 70.17 | 69.28 | 68.44 | 67.52 | 66.65 |
| QUAL | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |

PASS 3717 AT RESLUT, 63 628

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 151556 | 151613 | 151630 | 151648 | 151706 | 151723 | 151740 | 151757 |
| 1000 | 0.308 | 0.225 | 0.246 | 0.238 | 0.241 | 0.243 | 0.228 | 0.207 |
| 950 | 0.349 | 0.244 | 0.277 | 0.282 | 0.275 | 0.276 | 0.260 | 0.230 |
| 900 | 0.399 | 0.266 | 0.312 | 0.324 | 0.313 | 0.310 | 0.292 | 0.253 |
| 850 | 0.452 | 0.305 | 0.354 | 0.371 | 0.362 | 0.354 | 0.330 | 0.287 |
| 800 | 0.511 | 0.357 | 0.402 | 0.423 | 0.419 | 0.405 | 0.372 | 0.331 |
| 750 | 0.581 | 0.419 | 0.459 | 0.495 | 0.486 | 0.465 | 0.420 | 0.383 |
| 700 | 0.668 | 0.487 | 0.523 | 0.571 | 0.562 | 0.533 | 0.473 | 0.450 |
| 650 | 0.768 | 0.565 | 0.599 | 0.682 | 0.663 | 0.610 | 0.543 | 0.528 |
| 600 | 0.892 | 0.652 | 0.717 | 0.834 | 0.804 | 0.719 | 0.633 | 0.618 |
| 550 | 1.076 | 0.775 | 0.860 | 1.021 | 0.986 | 0.863 | 0.739 | 0.745 |
| 500 | 1.297 | 0.932 | 1.040 | 1.274 | 1.230 | 1.048 | 0.889 | 0.940 |
| 450 | 1.545 | 1.137 | 1.265 | 1.598 | 1.529 | 1.289 | 1.086 | 1.185 |
| 400 | | 1.392 | 1.564 | 2.000 | 1.908 | 1.606 | 1.345 | 1.491 |
| 350 | | 1.686 | | | 2.370 | 2.011 | 1.692 | 1.792 |
| 300 | | | | | | 2.504 | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 401.1 | 357.4 | 401.5 | | 366.4 | 391.1 | 391.0 | 439.7 |
| 900 | 388.9 | 512.0 | 400.0 | 340.6 | 358.6 | 390.5 | 408.2 | 428.4 |
| 850 | 385.5 | 447.4 | 391.7 | 346.6 | 337.5 | 375.5 | 411.9 | 396.7 |
| 800 | 382.1 | 382.7 | 380.7 | 337.2 | 329.4 | 363.2 | 410.6 | 364.9 |
| 750 | 372.6 | 343.9 | 365.0 | 323.3 | 322.4 | 354.1 | 393.3 | 335.3 |
| 700 | 352.8 | 336.1 | 349.3 | 309.4 | 315.3 | 345.0 | 376.0 | 319.6 |
| 650 | 333.1 | 328.4 | 332.4 | 288.9 | 296.3 | 335.9 | 353.5 | 304.0 |
| 600 | 315.9 | 320.6 | 307.4 | 264.4 | 263.3 | 311.1 | 327.9 | 288.3 |
| 550 | 306.7 | 294.6 | 282.4 | 242.5 | 242.6 | 278.0 | 302.4 | 265.3 |
| 500 | 297.6 | 262.5 | 264.3 | 229.4 | 236.1 | 254.0 | 277.9 | 232.7 |
| 450 | 323.3 | 255.5 | 247.0 | 225.2 | 230.0 | 238.8 | 253.9 | 224.6 |
| 400 | | 255.4 | 259.9 | 239.2 | 224.7 | 228.0 | 232.8 | 235.5 |
| 350 | | 322.7 | | | 304.5 | 227.6 | 255.2 | 423.4 |
| 300 | | | | | | 340.7 | | |
| LONG | -88.58 | -87.77 | -87.01 | -86.21 | -85.47 | -84.87 | -84.27 | -83.68 |
| LAT | 65.72 | 64.84 | 63.94 | 62.99 | 62.04 | 61.13 | 60.23 | 59.32 |
| QUAL | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |

PASS 3717 AT RESLUT, 63 628

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 151815 | 151832 | 151850 | 151907 | 151925 | 151943 | 152001 | 152018 |
| 1000 | 0.185 | 0.154 | 0.137 | 0.157 | 0.133 | 0.149 | 0.153 | 0.156 |
| 950 | 0.207 | 0.181 | 0.162 | 0.184 | 0.159 | 0.175 | 0.176 | 0.178 |
| 900 | 0.230 | 0.205 | 0.190 | 0.212 | 0.182 | 0.203 | 0.203 | 0.208 |
| 850 | 0.260 | 0.236 | 0.222 | 0.241 | 0.216 | 0.234 | 0.233 | 0.245 |
| 800 | 0.297 | 0.272 | 0.265 | 0.278 | 0.258 | 0.267 | 0.271 | 0.287 |
| 750 | 0.340 | 0.318 | 0.318 | 0.323 | 0.307 | 0.311 | 0.315 | 0.336 |
| 700 | 0.400 | 0.373 | 0.379 | 0.377 | 0.367 | 0.365 | 0.368 | 0.398 |
| 650 | 0.487 | 0.438 | 0.458 | 0.438 | 0.438 | 0.427 | 0.458 | 0.491 |
| 600 | 0.599 | 0.526 | 0.553 | 0.545 | 0.517 | 0.536 | 0.571 | 0.604 |
| 550 | 0.738 | 0.662 | 0.664 | 0.688 | 0.637 | 0.677 | 0.713 | 0.785 |
| 500 | 0.909 | 0.828 | 0.811 | 0.871 | 0.787 | 0.852 | 0.912 | 1.019 |
| 450 | 1.151 | 1.029 | 1.051 | 1.107 | 0.998 | 1.063 | 1.161 | 1.352 |
| 400 | 1.461 | 1.279 | 1.358 | 1.409 | 1.261 | 1.352 | 1.491 | 1.814 |
| 350 | 1.877 | 1.600 | 1.757 | 1.796 | 1.641 | 1.754 | 1.897 | 2.342 |
| 300 | 2.370 | 2.030 | 2.279 | 2.261 | 2.159 | 2.211 | 2.435 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 451.9 | | 298.2 | 340.3 | | | 349.8 | 335.3 |
| 900 | 414.1 | 355.1 | 297.5 | 350.7 | 298.0 | 341.5 | 346.0 | 322.8 |
| 850 | 388.3 | 343.7 | 296.8 | 344.7 | 296.6 | 339.5 | 342.1 | 310.7 |
| 800 | 364.6 | 332.2 | 290.4 | 332.1 | 293.1 | 337.6 | 321.9 | 300.8 |
| 750 | 340.9 | 317.6 | 283.3 | 317.6 | 289.7 | 317.5 | 301.7 | 290.9 |
| 700 | 305.7 | 301.8 | 276.2 | 303.1 | 283.7 | 295.4 | 281.4 | 275.7 |
| 650 | 257.3 | 286.0 | 267.9 | 288.6 | 277.0 | 273.3 | 260.9 | 247.6 |
| 600 | 241.5 | 267.3 | 259.3 | 262.0 | 270.4 | 251.6 | 240.5 | 219.5 |
| 550 | 237.0 | 243.3 | 250.6 | 231.7 | 246.7 | 230.0 | 222.7 | 203.7 |
| 500 | 231.1 | 228.2 | 236.0 | 214.2 | 223.1 | 221.3 | 213.5 | 188.2 |
| 450 | 218.7 | 230.5 | 208.0 | 211.6 | 215.5 | 218.9 | 206.8 | 175.5 |
| 400 | 208.4 | 226.5 | 195.6 | 209.8 | 207.9 | 201.3 | 206.0 | 189.2 |
| 350 | 210.5 | 216.9 | 195.9 | 212.5 | 190.9 | 209.3 | 209.0 | 316.0 |
| 300 | 258.4 | 209.0 | 227.9 | 224.2 | 213.2 | 260.1 | 339.3 | |
| LONG | -83.14 | -82.66 | -82.15 | -81.71 | -81.29 | -80.87 | -80.45 | -80.12 |
| LAT | 58.35 | 57.43 | 56.46 | 55.54 | 54.56 | 53.58 | 52.61 | 51.67 |
| QUAL | 32 | 32 | 32 | 32 | 22 | 22 | 22 | 22 |

PASS 3717 AT QUITOE, 63 628

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 153119 | 153154 | 153229 | 153304 | 153339 | 153414 | 153459 | 153507 |
| 1000 | 0.274 | 0.271 | 0.273 | 0.272 | 0.278 | 0.281 | 0.275 | 0.264 |
| 950 | 0.309 | 0.306 | 0.306 | 0.304 | 0.306 | 0.310 | 0.303 | 0.294 |
| 900 | 0.350 | 0.348 | 0.345 | 0.341 | 0.339 | 0.343 | 0.337 | 0.329 |
| 850 | 0.397 | 0.397 | 0.390 | 0.383 | 0.378 | 0.382 | 0.375 | 0.367 |
| 800 | 0.457 | 0.453 | 0.441 | 0.433 | 0.425 | 0.427 | 0.425 | 0.416 |
| 750 | 0.530 | 0.524 | 0.512 | 0.496 | 0.491 | 0.491 | 0.485 | 0.475 |
| 700 | 0.624 | 0.620 | 0.599 | 0.577 | 0.571 | 0.568 | 0.558 | 0.549 |
| 650 | 0.738 | 0.734 | 0.707 | 0.681 | 0.675 | 0.671 | 0.656 | 0.667 |
| 600 | 0.909 | 0.884 | 0.846 | 0.806 | 0.801 | 0.794 | 0.800 | 0.813 |
| 550 | 1.141 | 1.105 | 1.042 | 1.016 | 0.991 | 0.996 | 1.030 | 1.066 |
| 500 | 1.486 | 1.448 | 1.377 | 1.328 | 1.286 | 1.308 | 1.417 | 1.463 |
| 450 | 2.027 | 2.011 | 1.961 | 1.856 | 1.818 | 1.888 | 2.120 | 2.135 |
| 400 | 2.841 | 2.834 | 2.781 | 2.680 | 2.689 | 2.838 | 3.119 | 3.276 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 415.4 | 398.1 | 421.9 | 438.5 | 480.6 | 490.5 | 500.1 | 459.9 |
| 900 | 392.8 | 378.5 | 400.1 | 426.2 | 454.2 | 463.7 | 458.7 | 440.3 |
| 850 | 373.2 | 363.9 | 385.0 | 411.1 | 427.7 | 438.4 | 424.0 | 412.4 |
| 800 | 346.6 | 349.2 | 369.9 | 386.3 | 399.1 | 410.8 | 398.9 | 380.6 |
| 750 | 320.9 | 332.6 | 346.0 | 348.6 | 360.0 | 365.4 | 374.2 | 348.7 |
| 700 | 298.4 | 314.2 | 321.1 | 317.5 | 321.0 | 322.1 | 344.5 | 314.5 |
| 650 | 275.8 | 295.8 | 294.1 | 291.6 | 293.4 | 293.1 | 288.6 | 272.7 |
| 600 | 241.9 | 247.8 | 263.6 | 265.8 | 267.1 | 264.1 | 231.5 | 231.0 |
| 550 | 206.5 | 205.7 | 215.4 | 217.2 | 223.8 | 216.1 | 181.5 | 181.4 |
| 500 | 178.2 | 173.2 | 165.3 | 172.9 | 173.5 | 166.2 | 144.1 | 149.2 |
| 450 | 149.8 | 145.2 | 136.4 | 140.7 | 134.9 | 126.7 | 119.0 | 118.3 |
| 400 | 162.1 | 159.3 | 158.3 | 154.1 | 144.2 | 155.0 | 151.4 | 159.0 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -73.22 | -73.01 | -72.82 | -72.63 | -72.44 | -72.26 | -72.02 | -71.97 |
| LAT | 14.92 | 12.96 | 11.00 | 9.04 | 7.07 | 5.10 | 2.58 | 2.13 |
| QUAL | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 23 |

PASS 3717 AT QUITOE, 63 628

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 153542 | 153617 | 153652 | 153727 | 153801 | 153837 | 153911 | 153946 |
| 1000 | 0.261 | 0.230 | 0.259 | 0.240 | 0.235 | 0.222 | 0.216 | 0.182 |
| 950 | 0.288 | 0.257 | 0.289 | 0.271 | 0.264 | 0.253 | 0.245 | 0.201 |
| 900 | 0.320 | 0.289 | 0.326 | 0.306 | 0.298 | 0.287 | 0.277 | 0.232 |
| 850 | 0.357 | 0.327 | 0.366 | 0.345 | 0.338 | 0.324 | 0.313 | 0.273 |
| 800 | 0.409 | 0.377 | 0.415 | 0.396 | 0.387 | 0.376 | 0.356 | 0.326 |
| 750 | 0.479 | 0.437 | 0.482 | 0.466 | 0.452 | 0.440 | 0.415 | 0.395 |
| 700 | 0.563 | 0.514 | 0.561 | 0.550 | 0.529 | 0.521 | 0.491 | 0.491 |
| 650 | 0.680 | 0.608 | 0.670 | 0.679 | 0.654 | 0.669 | 0.610 | 0.617 |
| 600 | 0.828 | 0.753 | 0.811 | 0.858 | 0.871 | 0.954 | 0.843 | 0.890 |
| 550 | 1.060 | 0.975 | 1.068 | 1.244 | 1.243 | 1.489 | 1.269 | 1.384 |
| 500 | 1.458 | 1.347 | 1.526 | 2.120 | 2.055 | 2.535 | 2.142 | 2.183 |
| 450 | 2.261 | 2.066 | 2.579 | 3.562 | 3.379 | 3.668 | 3.348 | 3.402 |
| 400 | 3.482 | 3.429 | | | | | 4.083 | 4.267 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 471.7 | 425.0 | 468.4 | 404.3 | 409.5 | 391.0 | 395.8 | 381.0 |
| 900 | 438.6 | 402.8 | 422.9 | 395.9 | 392.4 | 379.6 | 403.4 | 350.8 |
| 850 | 395.8 | 380.6 | 396.1 | 368.0 | 371.8 | 359.5 | 389.9 | 323.6 |
| 800 | 361.9 | 356.4 | 369.3 | 339.1 | 350.4 | 335.3 | 349.8 | 296.3 |
| 750 | 331.7 | 332.2 | 342.3 | 309.4 | 327.8 | 310.6 | 315.1 | 265.1 |
| 700 | 301.4 | 300.8 | 315.3 | 279.7 | 299.9 | 272.4 | 281.3 | 226.3 |
| 650 | 268.4 | 266.5 | 271.8 | 235.1 | 203.7 | 172.9 | 186.1 | 186.1 |
| 600 | 234.5 | 222.5 | 222.9 | 182.9 | 168.3 | 135.9 | 147.2 | 133.0 |
| 550 | 189.0 | 180.7 | 176.4 | 116.1 | 122.9 | 98.3 | 106.9 | 110.4 |
| 500 | 140.9 | 141.5 | 124.6 | 89.1 | 93.8 | 106.1 | 103.1 | 109.6 |
| 450 | 106.5 | 100.4 | 96.6 | 140.7 | 125.8 | 480.3 | 166.7 | 157.7 |
| 400 | 165.2 | 143.8 | | | | | 859.3 | 326.4 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -71.79 | -71.61 | -71.43 | -71.25 | -71.06 | -70.87 | -70.68 | -70.48 |
| LAT | 0.17 | -1.80 | -3.77 | -5.74 | -7.65 | -9.67 | -11.58 | -13.54 |
| QUAL | 23 | 22 | 33 | 23 | 22 | 22 | 22 | 23 |

PASS 3717 AT QUITOE, 63 628

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 154021 |
| 1000 | 0.218 |
| 950 | 0.245 |
| 900 | 0.275 |
| 850 | 0.307 |
| 800 | 0.346 |
| 750 | 0.398 |
| 700 | 0.467 |
| 650 | 0.564 |
| 600 | 0.761 |
| 550 | 1.115 |
| 500 | 1.848 |
| 450 | 2.899 |
| 400 | 4.044 |
| 350 | |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 435.9 |
| 900 | 458.9 |
| 850 | 466.6 |
| 800 | 365.0 |
| 750 | 334.6 |
| 700 | 290.7 |
| 650 | 220.3 |
| 600 | 163.0 |
| 550 | 119.9 |
| 500 | 99.1 |
| 450 | 127.8 |
| 400 | 193.0 |
| 350 | |
| 300 | |

| | |
|---|---|
| LONG | -70.28 |
| LAT | -15.50 |
| QUAL | 33 |

PASS 3717 AT AGASTA, 63 628

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 154122 | 154157 | 154232 | 154307 | 154342 | 154417 | 154452 | 154527 |
| 1000 | 0.212 | 0.189 | 0.177 | 0.169 | 0.172 | 0.128 | 0.121 | 0.103 |
| 950 | 0.230 | 0.214 | 0.198 | 0.183 | 0.186 | 0.141 | 0.130 | 0.112 |
| 900 | 0.253 | 0.238 | 0.221 | 0.204 | 0.203 | 0.155 | 0.141 | 0.122 |
| 850 | 0.280 | 0.264 | 0.247 | 0.230 | 0.227 | 0.173 | 0.153 | 0.134 |
| 800 | 0.314 | 0.299 | 0.277 | 0.261 | 0.256 | 0.193 | 0.168 | 0.148 |
| 750 | 0.362 | 0.343 | 0.312 | 0.296 | 0.288 | 0.214 | 0.186 | 0.164 |
| 700 | 0.421 | 0.394 | 0.357 | 0.334 | 0.323 | 0.241 | 0.207 | 0.182 |
| 650 | 0.494 | 0.455 | 0.411 | 0.381 | 0.376 | 0.273 | 0.233 | 0.212 |
| 600 | 0.607 | 0.527 | 0.498 | 0.454 | 0.450 | 0.312 | 0.272 | 0.250 |
| 550 | 0.775 | 0.649 | 0.630 | 0.568 | 0.567 | 0.355 | 0.331 | 0.295 |
| 500 | 1.161 | 1.012 | 0.922 | 0.760 | 0.804 | 0.417 | 0.434 | 0.399 |
| 450 | 2.018 | 1.671 | 1.455 | 1.151 | 1.127 | 0.624 | 0.598 | 0.535 |
| 400 | 3.328 | 2.795 | 2.543 | 1.887 | 1.740 | 1.013 | 0.894 | 0.790 |
| 350 | 4.675 | 4.415 | | 3.148 | 2.818 | 1.626 | 1.349 | 1.176 |
| 300 | 5.704 | 6.125 | | 4.777 | 4.323 | 2.703 | 2.123 | 1.742 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 531.6 | 442.0 | 444.6 | 499.1 | 550.3 | 521.1 | 645.6 | 567.7 |
| 900 | 496.4 | 445.3 | 443.6 | 472.2 | 518.5 | 499.5 | 594.2 | 556.0 |
| 850 | 461.2 | 426.9 | 441.8 | 445.3 | 484.4 | 493.4 | 545.1 | 532.9 |
| 800 | 418.4 | 403.8 | 427.1 | 418.5 | 450.3 | 463.9 | 516.3 | 500.0 |
| 750 | 363.2 | 380.2 | 390.7 | 395.3 | 409.6 | 412.5 | 487.4 | 445.7 |
| 700 | 316.0 | 353.2 | 350.6 | 372.1 | 367.8 | 387.2 | 458.6 | 392.6 |
| 650 | 277.1 | 314.8 | 310.1 | 340.4 | 314.6 | 361.9 | 386.0 | 344.8 |
| 600 | 228.6 | 270.3 | 253.6 | 267.9 | 257.2 | 336.6 | 283.8 | 297.0 |
| 550 | 174.7 | 213.2 | 173.9 | 206.3 | 207.0 | 311.4 | 229.2 | 249.2 |
| 500 | 108.2 | 114.3 | 118.2 | 157.2 | 172.5 | 272.4 | 183.8 | 202.6 |
| 450 | 91.4 | 94.8 | 95.9 | 121.7 | 138.4 | 115.0 | 144.8 | 156.0 |
| 400 | 118.4 | 100.5 | 98.3 | 98.7 | 114.1 | 104.3 | 130.3 | 131.3 |
| 350 | 199.8 | 128.9 | | 108.0 | 107.9 | 103.2 | 116.5 | 128.0 |
| 300 | 326.5 | 187.5 | | 135.6 | 136.9 | 104.1 | 102.9 | 127.0 |
| LONG | -69.91 | -69.69 | -69.24 | -68.83 | -68.68 | -68.53 | -68.36 | -68.08 |
| LAT | -18.91 | -20.87 | -21.55 | -22.25 | -23.50 | -26.12 | -30.16 | -32.59 |
| QUAL | 33 | 23 | 23 | 23 | 33 | 23 | 23 | 23 |

PASS 3717 AT AGASTA, 63 628

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 154544 | 154619 | 154654 | 154728 | 154747 | 154821 | 154856 | 154914 |
| 1000 | 0.095 | 0.091 | 0.078 | 0.118 | 0.079 | 0.085 | 0.107 | 0.085 |
| 950 | 0.104 | 0.100 | 0.084 | 0.121 | 0.081 | 0.088 | 0.110 | 0.087 |
| 900 | 0.115 | 0.110 | 0.091 | 0.126 | 0.085 | 0.092 | 0.118 | 0.091 |
| 850 | 0.128 | 0.122 | 0.102 | 0.133 | 0.090 | 0.097 | 0.128 | 0.098 |
| 800 | 0.142 | 0.136 | 0.116 | 0.141 | 0.096 | 0.103 | 0.138 | 0.109 |
| 750 | 0.158 | 0.152 | 0.133 | 0.152 | 0.102 | 0.113 | 0.152 | 0.121 |
| 700 | 0.176 | 0.170 | 0.153 | 0.176 | 0.114 | 0.126 | 0.171 | 0.134 |
| 650 | 0.197 | 0.191 | 0.175 | 0.207 | 0.131 | 0.143 | 0.198 | 0.156 |
| 600 | 0.226 | 0.222 | 0.200 | 0.244 | 0.153 | 0.165 | 0.236 | 0.189 |
| 550 | 0.270 | 0.264 | 0.240 | 0.288 | 0.182 | 0.203 | 0.289 | 0.233 |
| 500 | 0.351 | 0.338 | 0.303 | 0.377 | 0.249 | 0.265 | 0.364 | 0.300 |
| 450 | 0.493 | 0.454 | 0.417 | 0.522 | 0.350 | 0.352 | 0.489 | 0.408 |
| 400 | 0.733 | 0.663 | 0.608 | 0.717 | 0.495 | 0.490 | 0.650 | 0.580 |
| 350 | 1.115 | 1.020 | 0.893 | 0.996 | 0.778 | 0.704 | 0.929 | 0.818 |
| 300 | 1.620 | 1.664 | 1.367 | 1.519 | 1.221 | 1.087 | 1.408 | 1.248 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 504.9 | 512.1 | 576.9 | 1536.2 | 1329.7 | 1422.9 | 1264.5 | 1519.0 |
| 900 | 494.4 | 496.2 | 504.4 | 1070.8 | 986.6 | 981.3 | 920.9 | 909.1 |
| 850 | 483.9 | 484.0 | 469.5 | 912.1 | 874.0 | 844.5 | 665.7 | 745.6 |
| 800 | 473.6 | 472.9 | 439.0 | 753.5 | 761.4 | 707.6 | 583.7 | 582.2 |
| 750 | 463.4 | 461.7 | 408.5 | 583.9 | 648.7 | 588.9 | 495.6 | 481.8 |
| 700 | 436.5 | 419.6 | 379.4 | 352.0 | 491.6 | 483.9 | 387.1 | 398.5 |
| 650 | 397.3 | 372.3 | 353.3 | 292.4 | 341.6 | 385.0 | 311.3 | 288.3 |
| 600 | 328.5 | 313.5 | 327.3 | 271.8 | 290.4 | 305.0 | 266.1 | 257.8 |
| 550 | 240.1 | 256.4 | 258.5 | 251.2 | 237.7 | 213.8 | 235.3 | 226.2 |
| 500 | 180.9 | 205.7 | 192.9 | 185.0 | 177.0 | 184.0 | 207.2 | 185.5 |
| 450 | 144.1 | 158.4 | 146.8 | 150.2 | 144.2 | 168.4 | 186.8 | 161.1 |
| 400 | 128.1 | 124.4 | 138.0 | 149.8 | 130.6 | 150.0 | 166.4 | 150.4 |
| 350 | 130.0 | 114.8 | 125.6 | 140.9 | 119.6 | 126.9 | 139.1 | 138.7 |
| 300 | 127.8 | 95.4 | 107.8 | 113.8 | 107.9 | 103.4 | 98.6 | 117.5 |
| LONG | -67.92 | -67.59 | -67.23 | -66.85 | -66.63 | -66.21 | -65.75 | -65.49 |
| LAT | -33.54 | -35.48 | -37.42 | -39.30 | -40.36 | -42.24 | -44.17 | -45.16 |
| QUAL | 23 | 23 | 23 | 23 | 22 | 23 | 33 | 23 |

PASS 3717 AT AGASTA, 63 628

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 154949 | 155022 |
| 1000 | 0.102 | 0.107 |
| 950 | 0.104 | 0.111 |
| 900 | 0.108 | 0.116 |
| 850 | 0.113 | 0.123 |
| 800 | 0.119 | 0.135 |
| 750 | 0.131 | 0.151 |
| 700 | 0.154 | 0.172 |
| 650 | 0.181 | 0.199 |
| 600 | 0.212 | 0.241 |
| 550 | 0.274 | 0.299 |
| 500 | 0.359 | 0.377 |
| 450 | 0.466 | 0.497 |
| 400 | 0.658 | 0.717 |
| 350 | 1.003 | 1.093 |
| 300 | 1.635 | 1.806 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 1748.0 | 1295.6 |
| 900 | 1262.9 | 978.9 |
| 850 | 1038.8 | 730.7 |
| 800 | 814.7 | 556.1 |
| 750 | 589.7 | 430.8 |
| 700 | 362.9 | 371.5 |
| 650 | 289.7 | 313.4 |
| 600 | 257.0 | 259.6 |
| 550 | 199.2 | 225.6 |
| 500 | 180.9 | 202.0 |
| 450 | 171.7 | 155.3 |
| 400 | 135.4 | 135.5 |
| 350 | 113.8 | 114.7 |
| 300 | 87.3 | 100.8 |
| LONG | -64.95 | -64.39 |
| LAT | -47.09 | -48.90 |
| QUAL | 23 | 33 |

PASS 3737 AT AGASTA, 63 630

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 32911 | 33056 | 33131 | 33223 | 33258 | 33518 | 33646 |
| 1000 | 0.126 | 0.108 | 0.128 | 0.122 | 0.144 | 0.135 | 0.129 |
| 950 | 0.131 | 0.115 | 0.138 | 0.126 | 0.152 | 0.141 | 0.134 |
| 900 | 0.137 | 0.119 | 0.143 | 0.133 | 0.161 | 0.149 | 0.140 |
| 850 | 0.144 | 0.124 | 0.148 | 0.142 | 0.171 | 0.157 | 0.148 |
| 800 | 0.153 | 0.129 | 0.157 | 0.151 | 0.184 | 0.170 | 0.161 |
| 750 | 0.163 | 0.135 | 0.169 | 0.163 | 0.202 | 0.188 | 0.178 |
| 700 | 0.176 | 0.145 | 0.183 | 0.181 | 0.231 | 0.212 | 0.196 |
| 650 | 0.201 | 0.160 | 0.208 | 0.210 | 0.274 | 0.261 | 0.225 |
| 600 | 0.249 | 0.191 | 0.262 | 0.264 | 0.339 | 0.349 | 0.272 |
| 550 | 0.328 | 0.240 | 0.356 | 0.350 | 0.444 | 0.462 | 0.345 |
| 500 | 0.453 | 0.350 | 0.510 | 0.480 | 0.613 | 0.599 | 0.461 |
| 450 | 0.689 | 0.599 | 0.750 | 0.662 | 0.852 | 0.760 | 0.624 |
| 400 | 1.000 | 0.892 | 1.061 | 0.956 | 1.182 | 1.149 | 0.903 |
| 350 | | | | 1.301 | 1.678 | 1.714 | 1.326 |
| 300 | | | | | | | 1.871 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 1158.1 | | | 1322.1 | 919.1 | 1036.7 | 1191.3 |
| 900 | 1041.9 | 1201.8 | | 1012.3 | 871.1 | 926.5 | 1072.3 |
| 850 | 866.1 | 1267.0 | 1112.6 | 812.5 | 751.7 | 746.7 | 772.9 |
| 800 | 790.0 | 1185.6 | 860.8 | 708.2 | 594.0 | 606.1 | 648.1 |
| 750 | 718.3 | 919.5 | 661.2 | 592.4 | 458.2 | 491.3 | 531.3 |
| 700 | 532.6 | 655.0 | 485.9 | 421.0 | 355.5 | 331.2 | 444.0 |
| 650 | 285.3 | 393.4 | 308.1 | 279.3 | 273.9 | 246.1 | 330.1 |
| 600 | 221.6 | 255.3 | 207.8 | 211.9 | 222.1 | 198.4 | 241.8 |
| 550 | 174.6 | 188.1 | 158.4 | 173.1 | 187.4 | 181.1 | 199.6 |
| 500 | 142.4 | 136.3 | 140.6 | 161.9 | 167.7 | 174.6 | 175.1 |
| 450 | 145.7 | 112.8 | 140.8 | 153.0 | 155.3 | 168.2 | 156.7 |
| 400 | 107.8 | 140.6 | 140.6 | 152.3 | 150.0 | 136.7 | 140.1 |
| 350 | | | | 283.3 | 199.0 | 136.5 | 141.4 |
| 300 | | | | | | | 172.5 |
| LONG | -79.42 | -78.52 | -78.26 | -77.88 | -77.64 | -76.79 | -76.30 |
| LAT | -33.43 | -27.53 | -25.56 | -22.63 | -20.65 | -12.74 | -7.76 |
| QUAL | 32 | 33 | 32 | 32 | 33 | 33 | 33 |

PASS 3737 AT QUITOE, 63 639

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 33819 | 33854 | 33911 | 33946 | 34004 | 34039 | 34114 | 34131 |
| 1000 | 0.088 | 0.099 | 0.095 | 0.097 | 0.103 | 0.093 | 0.094 | 0.119 |
| 950 | 0.092 | 0.103 | 0.099 | 0.100 | 0.108 | 0.100 | 0.100 | 0.122 |
| 900 | 0.096 | 0.108 | 0.104 | 0.106 | 0.116 | 0.105 | 0.106 | 0.127 |
| 850 | 0.101 | 0.113 | 0.112 | 0.114 | 0.124 | 0.112 | 0.113 | 0.134 |
| 800 | 0.109 | 0.120 | 0.121 | 0.123 | 0.136 | 0.121 | 0.122 | 0.143 |
| 750 | 0.121 | 0.128 | 0.133 | 0.139 | 0.154 | 0.139 | 0.132 | 0.157 |
| 700 | 0.137 | 0.140 | 0.146 | 0.159 | 0.177 | 0.165 | 0.151 | 0.182 |
| 650 | 0.153 | 0.159 | 0.164 | 0.185 | 0.208 | 0.205 | 0.186 | 0.240 |
| 600 | 0.171 | 0.183 | 0.191 | 0.224 | 0.252 | 0.271 | 0.271 | 0.333 |
| 550 | 0.198 | 0.218 | 0.236 | 0.277 | 0.328 | 0.382 | 0.401 | 0.515 |
| 500 | 0.276 | 0.289 | 0.317 | 0.396 | 0.469 | 0.562 | 0.642 | 0.773 |
| 450 | 0.489 | 0.454 | 0.492 | 0.603 | 0.757 | 0.868 | 1.036 | 1.232 |
| 400 | 0.762 | 0.687 | 0.866 | 1.012 | 1.243 | 1.361 | 1.648 | 1.855 |
| 350 | 1.111 | 1.385 | 1.456 | 1.661 | 1.881 | 2.037 | | 2.622 |
| 300 | | | 2.058 | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 1233.4 | 1159.7 | 1027.7 | 1189.2 | 833.5 | 924.7 | 842.5 | 1585.5 |
| 900 | 1050.8 | 1098.7 | 865.5 | 875.0 | 749.3 | 794.4 | 812.9 | 1123.4 |
| 850 | 767.3 | 965.4 | 692.9 | 651.2 | 596.0 | 659.4 | 694.5 | 839.9 |
| 800 | 673.9 | 840.0 | 665.8 | 583.7 | 488.7 | 524.3 | 607.4 | 653.7 |
| 750 | 580.5 | 714.6 | 536.0 | 443.7 | 420.5 | 359.1 | 526.8 | 497.2 |
| 700 | 487.1 | 568.5 | 481.0 | 383.7 | 353.9 | 266.5 | 362.2 | 226.2 |
| 650 | 437.3 | 386.9 | 386.8 | 323.5 | 294.3 | 210.8 | 208.5 | 167.0 |
| 600 | 392.2 | 316.9 | 291.4 | 263.8 | 233.7 | 167.1 | 122.2 | 133.3 |
| 550 | 212.4 | 241.0 | 207.2 | 198.8 | 172.0 | 143.2 | 118.0 | 115.5 |
| 500 | 120.9 | 150.1 | 147.9 | 143.3 | 126.5 | 119.6 | 105.6 | 118.1 |
| 450 | 97.2 | 102.4 | 100.3 | 106.4 | 101.7 | 117.5 | 107.8 | 117.0 |
| 400 | 123.7 | 91.3 | 94.7 | 102.1 | 111.7 | 119.9 | 120.6 | 133.6 |
| 350 | 135.0 | 119.9 | 131.6 | 108.5 | 129.1 | 136.9 | | 155.9 |
| 300 | | | 214.6 | | | | | |
| LONG | -75.80 | -75.61 | -75.52 | -75.33 | -75.24 | -75.05 | -74.86 | -74.77 |
| LAT | -2.49 | -0.51 | 0.45 | 2.42 | 3.44 | 5.42 | 7.40 | 8.37 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3737 AT QUITOE, 63 630

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 34426 | 34501 | 34526 |
| 1000 | 0.113 | 0.105 | 0.086 |
| 950 | 0.118 | 0.111 | 0.096 |
| 900 | 0.123 | 0.117 | 0.106 |
| 850 | 0.127 | 0.124 | 0.117 |
| 800 | 0.135 | 0.132 | 0.126 |
| 750 | 0.145 | 0.149 | 0.138 |
| 700 | 0.157 | 0.182 | 0.155 |
| 650 | 0.178 | 0.243 | 0.191 |
| 600 | 0.217 | 0.329 | 0.263 |
| 550 | 0.294 | 0.464 | 0.392 |
| 500 | 0.488 | 0.698 | 0.617 |
| 450 | 0.807 | 1.047 | 0.986 |
| 400 | 1.277 | 1.477 | 1.485 |
| 350 | | | |
| 300 | | | |

| HEIGHT | SCALE HEIGHT, KM | | |
|---|---|---|---|
| 950 | 1290.1 | 1092.4 | 506.8 |
| 900 | 1372.2 | 912.7 | 524.1 |
| 850 | 1092.5 | 865.0 | 604.5 |
| 800 | 773.6 | 659.8 | 576.6 |
| 750 | 629.0 | 336.5 | 497.1 |
| 700 | 517.0 | 190.9 | 348.2 |
| 650 | 382.3 | 173.8 | 191.5 |
| 600 | 215.1 | 154.9 | 142.0 |
| 550 | 134.0 | 139.2 | 119.0 |
| 500 | 104.4 | 128.2 | 112.7 |
| 450 | 107.3 | 138.7 | 118.5 |
| 400 | 130.2 | 162.5 | 135.9 |
| 350 | | | |
| 300 | | | |

| | | | |
|---|---|---|---|
| LONG | -73.75 | -73.52 | -73.36 |
| LAT | 18.27 | 20.25 | 21.66 |
| QUAL | 23 | 33 | 33 |

PASS 3738 AT RESLUT, 63 630

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 35719 | 35749 | 35807 | 35824 | 35841 | 35916 | 35933 | 35951 |
| 1000 | 0.080 | 0.097 | 0.100 | 0.081 | 0.110 | 0.169 | 0.144 | 0.128 |
| 950 | 0.096 | 0.117 | 0.122 | 0.098 | 0.131 | 0.195 | 0.168 | 0.156 |
| 900 | 0.110 | 0.134 | 0.147 | 0.117 | 0.154 | 0.222 | 0.196 | 0.182 |
| 850 | 0.134 | 0.157 | 0.176 | 0.141 | 0.183 | 0.253 | 0.230 | 0.210 |
| 800 | 0.163 | 0.184 | 0.210 | 0.173 | 0.220 | 0.295 | 0.266 | 0.243 |
| 750 | 0.197 | 0.218 | 0.249 | 0.211 | 0.264 | 0.344 | 0.304 | 0.281 |
| 700 | 0.235 | 0.259 | 0.300 | 0.256 | 0.318 | 0.401 | 0.357 | 0.333 |
| 650 | 0.278 | 0.306 | 0.374 | 0.324 | 0.383 | 0.503 | 0.422 | 0.398 |
| 600 | 0.338 | 0.369 | 0.469 | 0.419 | 0.458 | 0.631 | 0.498 | 0.474 |
| 550 | 0.419 | 0.478 | 0.615 | 0.542 | 0.580 | 0.793 | 0.607 | 0.581 |
| 500 | 0.527 | 0.613 | 0.802 | 0.706 | 0.734 | 0.996 | 0.775 | 0.717 |
| 450 | 0.688 | 0.807 | 1.043 | 0.947 | 0.934 | 1.272 | 0.957 | 0.890 |
| 400 | 0.903 | 1.060 | | 1.254 | 1.181 | | | 1.094 |
| 350 | 1.193 | 1.340 | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | | | | 265.3 | 289.6 | 363.4 | | |
| 900 | 289.5 | 314.2 | 271.3 | 261.8 | 287.4 | 358.3 | 324.1 | 319.9 |
| 850 | 283.8 | 307.9 | 280.3 | 255.8 | 283.8 | 341.7 | 336.1 | 328.3 |
| 800 | 278.0 | 301.5 | 279.5 | 249.0 | 279.5 | 321.9 | 330.9 | 321.6 |
| 750 | 273.8 | 290.1 | 266.9 | 242.1 | 275.2 | 302.1 | 324.4 | 314.8 |
| 700 | 270.6 | 277.4 | 250.5 | 235.2 | 267.3 | 282.3 | 308.8 | 301.5 |
| 650 | 267.3 | 264.7 | 229.1 | 221.8 | 258.5 | 253.2 | 293.2 | 287.1 |
| 600 | 252.5 | 249.1 | 209.8 | 205.1 | 249.7 | 224.1 | 277.6 | 272.7 |
| 550 | 230.0 | 224.9 | 200.1 | 191.7 | 228.2 | 219.6 | 256.3 | 254.8 |
| 500 | 210.0 | 200.7 | 192.8 | 181.7 | 212.9 | 226.6 | 226.5 | 238.0 |
| 450 | 195.8 | 189.8 | 202.9 | 179.7 | 216.1 | 265.8 | 308.9 | 242.0 |
| 400 | 187.2 | 198.4 | | 185.3 | 214.2 | | | 312.1 |
| 350 | 336.8 | 469.4 | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -62.42 | -61.29 | -60.54 | -59.72 | -58.91 | -56.99 | -55.92 | -54.79 |
| LAT | 61.17 | 62.76 | 63.71 | 64.60 | 65.49 | 67.29 | 68.16 | 69.07 |
| QUAL | 32 | 32 | 32 | 23 | 23 | 23 | 22 | 22 |

PASS 3738 AT RESLUT, 63 630

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 40008 | 40026 | 40042 | 40101 | 40118 | 40135 | 40153 | 40211 |
| 1000 | 0.162 | 0.127 | 0.145 | 0.158 | 0.144 | 0.168 | 0.139 | 0.192 |
| 950 | 0.184 | 0.152 | 0.169 | 0.189 | 0.173 | 0.198 | 0.165 | 0.226 |
| 900 | 0.213 | 0.178 | 0.195 | 0.221 | 0.208 | 0.231 | 0.193 | 0.259 |
| 850 | 0.246 | 0.208 | 0.224 | 0.262 | 0.248 | 0.269 | 0.220 | 0.298 |
| 800 | 0.285 | 0.244 | 0.258 | 0.310 | 0.292 | 0.314 | 0.254 | 0.342 |
| 750 | 0.336 | 0.290 | 0.296 | 0.371 | 0.343 | 0.365 | 0.294 | 0.401 |
| 700 | 0.397 | 0.343 | 0.349 | 0.446 | 0.408 | 0.441 | 0.339 | 0.472 |
| 650 | 0.466 | 0.435 | 0.423 | 0.532 | 0.484 | 0.534 | 0.404 | 0.554 |
| 600 | 0.565 | 0.563 | 0.513 | 0.672 | 0.609 | 0.646 | 0.498 | 0.676 |
| 550 | 0.714 | 0.724 | 0.628 | 0.853 | 0.785 | 0.817 | 0.612 | 0.856 |
| 500 | 0.895 | 0.931 | 0.811 | 1.087 | 0.998 | 1.045 | 0.791 | 1.094 |
| 450 | 1.110 | 1.187 | 1.057 | 1.402 | 1.276 | 1.375 | 1.018 | 1.417 |
| 400 | 1.369 | | 1.382 | | | 1.651 | 1.341 | |
| 350 | | | 1.674 | | | | 1.723 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 900 | 347.3 | 307.3 | 349.8 | 294.6 | 286.3 | 319.3 | 338.6 | 341.7 |
| 850 | 331.2 | 304.5 | 356.2 | 290.2 | 293.5 | 313.5 | 345.5 | 336.0 |
| 800 | 315.7 | 290.1 | 335.4 | 285.8 | 296.3 | 304.0 | 333.3 | 330.4 |
| 750 | 303.8 | 272.3 | 314.6 | 275.6 | 291.4 | 294.3 | 321.1 | 314.1 |
| 700 | 291.8 | 254.5 | 295.2 | 263.7 | 273.9 | 278.7 | 308.8 | 297.5 |
| 650 | 279.9 | 236.6 | 276.5 | 251.7 | 256.4 | 263.1 | 287.1 | 281.0 |
| 600 | 263.5 | 218.5 | 257.8 | 230.9 | 227.2 | 246.8 | 254.8 | 255.5 |
| 550 | 241.3 | 205.2 | 237.0 | 211.3 | 204.6 | 218.7 | 223.0 | 221.8 |
| 500 | 230.1 | 207.4 | 206.4 | 204.6 | 208.2 | 208.3 | 208.5 | 201.2 |
| 450 | 236.3 | 244.7 | 196.2 | 204.9 | 219.0 | 233.2 | 194.7 | 198.6 |
| 400 | 292.5 | | 226.6 | | | 313.9 | 189.6 | |
| 350 | | | 355.9 | | | | 251.0 | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -53.55 | -52.03 | -50.68 | -49.04 | -47.05 | -45.06 | -42.95 | -40.30 |
| LAT | 69.92 | 70.80 | 71.58 | 72.51 | 73.28 | 74.05 | 74.87 | 75.63 |
| QUAL | 22 | 22 | 22 | 23 | 23 | 23 | 22 | 22 |

PASS 3738 AT RESLUT, 63 630

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 40227 | 40244 | 40303 | 40320 | 40338 | 40356 | 40414 | 40431 |
| 1000 | 0.175 | 0.190 | 0.200 | 0.199 | 0.209 | 0.199 | 0.227 | 0.214 |
| 950 | 0.202 | 0.223 | 0.239 | 0.229 | 0.241 | 0.235 | 0.261 | 0.247 |
| 900 | 0.231 | 0.248 | 0.273 | 0.256 | 0.274 | 0.269 | 0.293 | 0.285 |
| 850 | 0.264 | 0.279 | 0.313 | 0.286 | 0.321 | 0.307 | 0.346 | 0.328 |
| 800 | 0.303 | 0.325 | 0.367 | 0.325 | 0.377 | 0.353 | 0.412 | 0.380 |
| 750 | 0.355 | 0.380 | 0.433 | 0.371 | 0.450 | 0.411 | 0.496 | 0.441 |
| 700 | 0.416 | 0.447 | 0.514 | 0.432 | 0.535 | 0.477 | 0.601 | 0.511 |
| 650 | 0.486 | 0.528 | 0.610 | 0.533 | 0.633 | 0.584 | 0.725 | 0.619 |
| 600 | 0.617 | 0.621 | 0.749 | 0.657 | 0.794 | 0.726 | 0.895 | 0.753 |
| 550 | 0.780 | 0.750 | 0.925 | 0.833 | 1.011 | 0.919 | 1.140 | 0.922 |
| 500 | 0.984 | 0.949 | 1.152 | 1.059 | 1.268 | 1.168 | 1.428 | 1.141 |
| 450 | 1.242 | 1.221 | 1.470 | 1.371 | 1.556 | 1.467 | 1.741 | 1.416 |
| 400 | 1.553 | 1.555 | 1.756 | 1.707 | | | | |
| 350 | | 1.859 | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 351.0 | | | 395.4 | 342.1 | | 350.8 | 349.0 |
| 900 | 354.2 | 371.5 | 337.1 | 416.3 | 338.2 | 350.0 | 340.7 | 347.0 |
| 850 | 347.4 | 366.3 | 333.5 | 398.2 | 319.6 | 350.2 | 317.3 | 344.7 |
| 800 | 337.5 | 346.6 | 317.0 | 368.9 | 301.5 | 336.7 | 294.0 | 333.0 |
| 750 | 315.6 | 326.8 | 301.0 | 339.6 | 288.3 | 315.1 | 275.0 | 316.6 |
| 700 | 293.6 | 309.5 | 286.4 | 307.5 | 275.2 | 293.4 | 263.6 | 300.2 |
| 650 | 271.7 | 294.1 | 271.5 | 269.5 | 262.0 | 262.3 | 252.3 | 281.7 |
| 600 | 251.0 | 278.7 | 249.6 | 231.5 | 243.1 | 228.9 | 235.0 | 263.1 |
| 550 | 230.3 | 254.9 | 231.8 | 216.9 | 222.3 | 217.2 | 216.8 | 248.1 |
| 500 | 217.7 | 218.9 | 220.1 | 207.2 | 236.6 | 216.9 | 233.7 | 237.5 |
| 450 | 224.7 | 214.3 | 243.8 | 214.2 | 290.0 | 271.6 | 375.6 | 275.7 |
| 400 | 286.9 | 245.0 | 518.4 | 267.6 | | | | |
| 350 | | 406.1 | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -37.64 | -34.81 | -31.44 | -27.44 | -23.19 | -18.95 | -13.71 | -8.48 |
| LAT | 76.27 | 76.95 | 77.68 | 78.21 | 78.77 | 79.33 | 79.68 | 79.96 |
| QUAL | 23 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |

PASS 3738 AT RESLUT, 63 630

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 40448 | 40536 | 40523 | 40540 | 40558 | 40616 | 40632 | 40650 |
| 1000 | 0.240 | 0.254 | 0.213 | 0.254 | 0.198 | 0.224 | 0.234 | 0.202 |
| 950 | 0.266 | 0.293 | 0.243 | 0.279 | 0.230 | 0.252 | 0.265 | 0.244 |
| 900 | 0.300 | 0.335 | 0.274 | 0.307 | 0.262 | 0.275 | 0.291 | 0.280 |
| 850 | 0.338 | 0.386 | 0.310 | 0.343 | 0.299 | 0.303 | 0.330 | 0.322 |
| 800 | 0.384 | 0.447 | 0.354 | 0.386 | 0.340 | 0.338 | 0.378 | 0.375 |
| 750 | 0.435 | 0.522 | 0.407 | 0.438 | 0.391 | 0.380 | 0.437 | 0.436 |
| 700 | 0.492 | 0.621 | 0.468 | 0.503 | 0.451 | 0.431 | 0.508 | 0.505 |
| 650 | 0.590 | 0.738 | 0.539 | 0.576 | 0.517 | 0.531 | 0.589 | 0.589 |
| 600 | 0.710 | 0.898 | 0.663 | 0.681 | 0.614 | 0.656 | 0.694 | 0.685 |
| 550 | 0.859 | 1.152 | 0.814 | 0.844 | 0.747 | 0.812 | 0.847 | 0.799 |
| 500 | 1.070 | 1.467 | 1.020 | 1.047 | 0.918 | 0.999 | 1.041 | 0.965 |
| 450 | 1.334 | | 1.295 | 1.292 | 1.138 | 1.263 | 1.294 | 1.166 |
| 400 | 1.623 | | | | 1.426 | | 1.613 | 1.425 |
| 350 | | | | | 1.744 | | | 1.678 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 425.6 | 340.3 | 392.5 | 494.1 | | | | |
| 900 | 413.5 | 349.7 | 388.0 | 474.0 | 361.8 | 492.6 | 424.5 | |
| 850 | 399.3 | 339.9 | 378.4 | 447.4 | 364.5 | 464.7 | 390.4 | 330.9 |
| 800 | 379.9 | 323.3 | 363.0 | 420.7 | 367.2 | 426.1 | 356.3 | 332.6 |
| 750 | 360.6 | 305.9 | 345.7 | 391.1 | 353.1 | 387.4 | 341.6 | 334.4 |
| 700 | 341.2 | 287.0 | 328.4 | 359.5 | 337.4 | 347.9 | 329.1 | 332.9 |
| 650 | 311.8 | 268.0 | 310.3 | 327.8 | 321.7 | 300.0 | 316.5 | 323.2 |
| 600 | 282.3 | 246.9 | 276.3 | 293.4 | 296.1 | 252.1 | 295.1 | 313.5 |
| 550 | 255.4 | 221.9 | 242.4 | 255.2 | 264.2 | 236.4 | 259.3 | 301.7 |
| 500 | 238.7 | 220.9 | 221.2 | 238.7 | 242.5 | 229.6 | 237.0 | 282.1 |
| 450 | 243.1 | | 196.2 | 242.0 | 231.7 | 192.1 | 231.5 | 263.6 |
| 400 | 312.0 | | | | 233.9 | | 288.4 | 266.6 |
| 350 | | | | | 329.9 | | | 476.9 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -3.25 | 2.45 | 8.13 | 13.82 | 19.84 | 25.15 | 29.79 | 35.01 |
| LAT | 80.23 | 80.41 | 80.37 | 80.32 | 80.28 | 79.94 | 79.60 | 79.23 |
| QUAL | 22 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 3771 AT FTMYRS, 63 7 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 141736 | 141818 | 141846 | 141925 | 141956 | 142031 | 142106 | 142145 |
| 1000 | 0.120 | 0.117 | 0.119 | 0.120 | 0.112 | 0.115 | 0.105 | 0.108 |
| 950 | 0.138 | 0.134 | 0.137 | 0.137 | 0.128 | 0.133 | 0.121 | 0.127 |
| 900 | 0.160 | 0.154 | 0.159 | 0.158 | 0.147 | 0.152 | 0.140 | 0.148 |
| 850 | 0.183 | 0.177 | 0.182 | 0.181 | 0.168 | 0.174 | 0.161 | 0.172 |
| 800 | 0.210 | 0.204 | 0.210 | 0.208 | 0.194 | 0.199 | 0.186 | 0.199 |
| 750 | 0.241 | 0.237 | 0.243 | 0.240 | 0.225 | 0.231 | 0.217 | 0.232 |
| 700 | 0.282 | 0.276 | 0.281 | 0.277 | 0.263 | 0.269 | 0.256 | 0.271 |
| 650 | 0.333 | 0.324 | 0.330 | 0.325 | 0.312 | 0.318 | 0.306 | 0.323 |
| 600 | 0.395 | 0.384 | 0.397 | 0.388 | 0.377 | 0.385 | 0.371 | 0.388 |
| 550 | 0.487 | 0.471 | 0.489 | 0.476 | 0.471 | 0.482 | 0.470 | 0.490 |
| 500 | 0.611 | 0.603 | 0.628 | 0.615 | 0.602 | 0.623 | 0.612 | 0.621 |
| 450 | 0.818 | 0.799 | 0.835 | 0.816 | 0.793 | 0.831 | 0.821 | 0.847 |
| 400 | 1.117 | 1.082 | 1.138 | 1.119 | 1.081 | 1.137 | 1.137 | 1.217 |
| 350 | 1.550 | 1.515 | 1.560 | 1.561 | 1.524 | 1.593 | 1.644 | 1.767 |
| 300 | 2.163 | 2.140 | 2.208 | 2.179 | 2.184 | 2.281 | 2.413 | 2.570 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 346.5 | 359.6 | 348.6 | 366.1 | 365.3 | 361.2 | 343.0 | 321.1 |
| 900 | 353.0 | 355.2 | 346.7 | 361.5 | 359.0 | 364.4 | 341.2 | 325.8 |
| 850 | 361.8 | 352.7 | 348.1 | 360.8 | 355.7 | 362.4 | 341.0 | 330.6 |
| 800 | 351.6 | 344.9 | 345.3 | 355.3 | 344.7 | 352.0 | 333.8 | 330.9 |
| 750 | 337.5 | 330.6 | 339.3 | 344.0 | 328.4 | 332.5 | 315.5 | 317.5 |
| 700 | 323.7 | 314.6 | 329.6 | 328.8 | 308.2 | 309.7 | 296.7 | 302.1 |
| 650 | 310.1 | 297.2 | 288.2 | 298.1 | 284.1 | 284.4 | 277.2 | 272.9 |
| 600 | 250.9 | 272.0 | 255.0 | 263.4 | 240.6 | 244.5 | 232.5 | 244.4 |
| 550 | 228.1 | 228.1 | 226.4 | 223.8 | 216.7 | 211.9 | 201.2 | 220.3 |
| 500 | 205.2 | 200.4 | 199.6 | 195.3 | 201.1 | 191.7 | 188.1 | 196.1 |
| 450 | 177.5 | 182.3 | 174.4 | 170.3 | 177.5 | 171.2 | 167.7 | 157.6 |
| 400 | 159.0 | 161.8 | 165.1 | 155.8 | 155.5 | 155.4 | 146.5 | 136.6 |
| 350 | 152.0 | 145.7 | 152.5 | 150.4 | 143.5 | 144.0 | 132.1 | 132.7 |
| 300 | 159.5 | 152.9 | 144.2 | 154.5 | 140.0 | 142.3 | 133.2 | 150.6 |
| LONG | -73.98 | -73.00 | -72.42 | -71.69 | -71.15 | -70.61 | -70.09 | -69.58 |
| LAT | 55.26 | 52.97 | 51.42 | 49.30 | 47.62 | 45.68 | 43.75 | 41.60 |
| QUAL | 33 | 32 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3771 AT FTMYRS, 63 7 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 142216 | 142305 | 142326 | 142405 | 142436 | 143128 | 143155 | 143238 |
| 1000 | 0.120 | 0.121 | 0.122 | 0.126 | 0.138 | 0.184 | 0.197 | 0.218 |
| 950 | 0.138 | 0.139 | 0.140 | 0.144 | 0.156 | 0.206 | 0.224 | 0.245 |
| 900 | 0.160 | 0.159 | 0.160 | 0.165 | 0.177 | 0.233 | 0.254 | 0.276 |
| 850 | 0.183 | 0.182 | 0.182 | 0.187 | 0.202 | 0.264 | 0.289 | 0.309 |
| 800 | 0.209 | 0.209 | 0.209 | 0.214 | 0.230 | 0.300 | 0.329 | 0.347 |
| 750 | 0.241 | 0.241 | 0.243 | 0.247 | 0.267 | 0.348 | 0.376 | 0.393 |
| 700 | 0.278 | 0.284 | 0.285 | 0.291 | 0.313 | 0.406 | 0.431 | 0.449 |
| 650 | 0.326 | 0.339 | 0.340 | 0.345 | 0.374 | 0.480 | 0.497 | 0.523 |
| 600 | 0.393 | 0.407 | 0.410 | 0.417 | 0.448 | 0.573 | 0.581 | 0.624 |
| 550 | 0.499 | 0.508 | 0.513 | 0.520 | 0.555 | 0.705 | 0.706 | 0.763 |
| 500 | 0.653 | 0.671 | 0.663 | 0.672 | 0.725 | 0.886 | 0.896 | 0.975 |
| 450 | 0.876 | 0.915 | 0.896 | 0.904 | 0.972 | 1.162 | 1.226 | 1.320 |
| 400 | 1.208 | 1.291 | 1.234 | 1.249 | 1.342 | 1.618 | 1.738 | 1.877 |
| 350 | 1.716 | 1.846 | 1.748 | 1.769 | 1.887 | 2.273 | 2.510 | 2.728 |
| 300 | 2.493 | 2.633 | 2.553 | 2.525 | 2.677 | | 3.284 | 3.707 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 359.0 | 355.9 | 366.3 | 374.0 | 394.3 | 413.5 | 378.5 | 421.1 |
| 900 | 355.7 | 360.6 | 368.8 | 376.2 | 382.6 | 396.1 | 385.7 | 424.9 |
| 850 | 361.3 | 360.4 | 362.2 | 375.0 | 374.3 | 381.6 | 383.3 | 420.7 |
| 800 | 358.8 | 349.1 | 347.3 | 357.9 | 357.5 | 367.0 | 379.1 | 412.8 |
| 750 | 347.6 | 320.5 | 325.1 | 320.6 | 326.0 | 341.8 | 369.7 | 384.3 |
| 700 | 327.5 | 297.8 | 304.6 | 303.9 | 300.7 | 315.4 | 355.5 | 352.0 |
| 650 | 296.9 | 280.3 | 286.2 | 287.3 | 283.4 | 288.4 | 325.1 | 306.8 |
| 600 | 236.8 | 262.7 | 242.8 | 247.9 | 265.4 | 261.5 | 289.6 | 268.7 |
| 550 | 204.7 | 201.9 | 209.1 | 210.7 | 206.4 | 235.4 | 243.6 | 235.4 |
| 500 | 186.4 | 177.5 | 189.7 | 188.2 | 186.4 | 206.2 | 196.7 | 194.7 |
| 450 | 167.5 | 154.4 | 165.2 | 166.1 | 167.7 | 171.9 | 154.8 | 156.0 |
| 400 | 150.6 | 143.2 | 152.1 | 151.6 | 152.4 | 149.1 | 139.6 | 137.3 |
| 350 | 137.3 | 140.3 | 135.4 | 139.9 | 146.4 | 158.7 | 151.5 | 142.7 |
| 300 | 140.5 | 147.2 | 139.3 | 139.4 | 150.8 | | 332.9 | 252.8 |
| LONG | -69.21 | -68.66 | -68.45 | -68.06 | -67.79 | -65.02 | -64.87 | -64.64 |
| LAT | 39.88 | 37.16 | 36.00 | 33.83 | 32.11 | 9.05 | 7.53 | 5.12 |
| QUAL | 33 | 33 | 32 | 33 | 33 | 33 | 31 | 32 |

PASS 3771 AT FTMYRS, 63 7 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 143348 |
| 1000 | 0.217 |
| 950 | 0.240 |
| 900 | 0.268 |
| 850 | 0.300 |
| 800 | 0.337 |
| 750 | 0.385 |
| 700 | 0.442 |
| 650 | 0.509 |
| 600 | 0.603 |
| 550 | 0.736 |
| 500 | 0.938 |
| 450 | 1.324 |
| 400 | 2.066 |
| 350 | 3.415 |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 466.9 |
| 900 | 444.6 |
| 850 | 427.5 |
| 800 | 409.7 |
| 750 | 382.3 |
| 700 | 351.9 |
| 650 | 314.6 |
| 600 | 276.7 |
| 550 | 238.4 |
| 500 | 190.4 |
| 450 | 132.5 |
| 400 | 100.4 |
| 350 | 124.7 |
| 300 | |

| | |
|---|---|
| LONG | -64.27 |
| LAT | 1.18 |
| QUAL | 32 |

PASS 3771 AT OTTAWA, 63 7 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 141920 | 141955 | 142030 | 142105 | 142140 | 142215 | 142250 | 142325 |
| 1000 | 0.123 | 0.109 | 0.117 | 0.122 | 0.124 | 0.135 | 0.136 | 0.133 |
| 950 | 0.143 | 0.128 | 0.134 | 0.138 | 0.144 | 0.156 | 0.156 | 0.151 |
| 900 | 0.164 | 0.149 | 0.154 | 0.158 | 0.165 | 0.178 | 0.177 | 0.171 |
| 850 | 0.187 | 0.172 | 0.176 | 0.182 | 0.188 | 0.202 | 0.200 | 0.194 |
| 800 | 0.214 | 0.198 | 0.203 | 0.209 | 0.215 | 0.232 | 0.228 | 0.221 |
| 750 | 0.247 | 0.230 | 0.234 | 0.243 | 0.250 | 0.267 | 0.262 | 0.253 |
| 700 | 0.285 | 0.267 | 0.272 | 0.283 | 0.293 | 0.308 | 0.301 | 0.296 |
| 650 | 0.328 | 0.319 | 0.328 | 0.329 | 0.345 | 0.369 | 0.357 | 0.355 |
| 600 | 0.404 | 0.390 | 0.395 | 0.403 | 0.432 | 0.450 | 0.446 | 0.426 |
| 550 | 0.511 | 0.483 | 0.504 | 0.517 | 0.543 | 0.558 | 0.555 | 0.533 |
| 500 | 0.642 | 0.627 | 0.647 | 0.657 | 0.692 | 0.717 | 0.706 | 0.678 |
| 450 | 0.843 | 0.834 | 0.861 | 0.886 | 0.928 | 0.914 | 0.924 | 0.902 |
| 400 | 1.123 | 1.138 | 1.171 | 1.193 | 1.265 | 1.249 | 1.274 | 1.234 |
| 350 | 1.552 | 1.566 | 1.610 | 1.651 | 1.774 | 1.744 | 1.742 | 1.702 |
| 300 | 2.171 | 2.198 | 2.238 | 2.400 | 2.531 | 2.443 | 2.383 | 2.431 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 900 | 353.3 | 327.1 | 358.1 | 359.3 | 367.4 | 368.1 | 378.8 | 384.2 |
| 850 | 356.5 | 335.7 | 354.6 | 352.5 | 356.4 | 364.3 | 375.3 | 376.8 |
| 800 | 354.3 | 330.7 | 340.0 | 345.7 | 345.3 | 348.7 | 359.8 | 356.5 |
| 750 | 334.2 | 317.2 | 325.4 | 325.5 | 322.7 | 331.9 | 335.8 | 336.2 |
| 700 | 314.0 | 303.7 | 304.6 | 304.7 | 295.9 | 315.1 | 311.8 | 311.4 |
| 650 | 293.9 | 279.0 | 272.8 | 284.0 | 269.0 | 285.5 | 286.5 | 283.9 |
| 600 | 268.2 | 249.3 | 240.9 | 256.8 | 245.0 | 251.5 | 259.5 | 256.4 |
| 550 | 240.6 | 220.0 | 218.2 | 225.1 | 221.1 | 223.5 | 232.4 | 228.1 |
| 500 | 212.9 | 192.1 | 196.0 | 193.4 | 197.7 | 206.9 | 203.3 | 199.4 |
| 450 | 190.3 | 173.7 | 174.4 | 177.7 | 175.5 | 190.4 | 172.8 | 177.4 |
| 400 | 170.3 | 165.7 | 160.6 | 161.9 | 156.9 | 161.4 | 160.6 | 160.0 |
| 350 | 153.9 | 152.3 | 155.0 | 146.4 | 146.9 | 151.0 | 160.8 | 149.9 |
| 300 | 156.5 | 153.3 | 147.1 | 140.2 | 154.8 | 151.4 | 155.4 | 142.1 |
| LONG | -71.78 | -71.17 | -70.62 | -70.10 | -69.65 | -69.22 | -68.82 | -68.46 |
| LAT | 49.59 | 47.67 | 45.74 | 43.80 | 41.87 | 39.94 | 37.99 | 36.05 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 3771 AT OTTAWA, 63 7 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 142400 | 142435 |
| 1000 | 0.139 | 0.146 |
| 950 | 0.158 | 0.165 |
| 900 | 0.178 | 0.185 |
| 850 | 0.202 | 0.208 |
| 800 | 0.228 | 0.235 |
| 750 | 0.258 | 0.271 |
| 700 | 0.308 | 0.321 |
| 650 | 0.369 | 0.381 |
| 600 | 0.442 | 0.464 |
| 550 | 0.552 | 0.564 |
| 500 | 0.715 | 0.730 |
| 450 | 0.933 | 0.945 |
| 400 | 1.269 | 1.280 |
| 350 | 1.782 | 1.761 |
| 300 | 2.562 | 2.476 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 402.5 | 419.7 |
| 900 | 400.5 | 423.8 |
| 850 | 381.1 | 399.0 |
| 800 | 361.7 | 368.1 |
| 750 | 342.2 | 338.2 |
| 700 | 314.7 | 309.3 |
| 650 | 287.2 | 280.5 |
| 600 | 259.7 | 252.4 |
| 550 | 232.2 | 224.9 |
| 500 | 204.9 | 205.3 |
| 450 | 179.2 | 185.7 |
| 400 | 158.0 | 167.7 |
| 350 | 145.6 | 155.0 |
| 300 | 147.2 | 150.2 |
| LONG | -68.11 | -67.79 |
| LAT | 34.11 | 32.16 |
| QUAL | 23 | 23 |

PASS 3771 AT QUITOE, 63 7 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 143112 | 143154 | 143229 | 143304 | 143339 | 143414 | 143449 | 143524 |
| 1000 | 0.173 | 0.186 | 0.185 | 0.182 | 0.209 | 0.211 | 0.216 | 0.212 |
| 950 | 0.196 | 0.208 | 0.209 | 0.203 | 0.231 | 0.232 | 0.237 | 0.227 |
| 900 | 0.223 | 0.234 | 0.234 | 0.228 | 0.256 | 0.262 | 0.261 | 0.248 |
| 850 | 0.254 | 0.270 | 0.267 | 0.260 | 0.291 | 0.293 | 0.288 | 0.273 |
| 800 | 0.291 | 0.313 | 0.306 | 0.299 | 0.334 | 0.328 | 0.319 | 0.302 |
| 750 | 0.334 | 0.362 | 0.353 | 0.344 | 0.383 | 0.368 | 0.354 | 0.336 |
| 700 | 0.389 | 0.416 | 0.411 | 0.394 | 0.434 | 0.416 | 0.410 | 0.384 |
| 650 | 0.468 | 0.478 | 0.477 | 0.464 | 0.500 | 0.489 | 0.480 | 0.450 |
| 600 | 0.565 | 0.570 | 0.576 | 0.553 | 0.588 | 0.580 | 0.582 | 0.543 |
| 550 | 0.703 | 0.729 | 0.721 | 0.684 | 0.729 | 0.738 | 0.752 | 0.704 |
| 500 | 0.899 | 0.957 | 0.928 | 0.872 | 0.979 | 0.961 | 0.969 | 0.965 |
| 450 | 1.192 | 1.305 | 1.234 | 1.181 | 1.377 | 1.396 | 1.506 | 1.529 |
| 400 | 1.681 | 1.835 | 1.800 | 1.735 | 2.101 | 2.279 | 2.587 | 2.749 |
| 350 | | 2.636 | 2.649 | 2.694 | 3.397 | 3.926 | 4.396 | 4.574 |
| 300 | | 3.321 | 3.751 | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 407.6 | 415.1 | 407.6 | 438.9 | 467.3 | 542.2 | 520.2 | 641.5 |
| 900 | 385.5 | 381.6 | 392.4 | 404.7 | 426.1 | 462.9 | 517.0 | 561.6 |
| 850 | 374.1 | 370.4 | 376.7 | 384.0 | 414.0 | 448.1 | 499.8 | 504.5 |
| 800 | 355.6 | 359.2 | 360.8 | 364.2 | 401.8 | 435.4 | 448.5 | 469.5 |
| 750 | 332.0 | 349.1 | 342.4 | 348.2 | 385.1 | 397.0 | 396.8 | 434.6 |
| 700 | 307.5 | 339.6 | 318.9 | 332.2 | 361.6 | 357.3 | 346.7 | 353.4 |
| 650 | 281.2 | 318.4 | 295.5 | 300.3 | 321.6 | 308.1 | 296.6 | 282.5 |
| 600 | 254.7 | 240.2 | 263.2 | 262.4 | 273.1 | 258.9 | 249.7 | 236.4 |
| 550 | 221.3 | 207.6 | 224.1 | 227.9 | 225.4 | 213.1 | 208.8 | 189.4 |
| 500 | 191.6 | 178.7 | 188.7 | 195.4 | 178.9 | 167.9 | 167.9 | 141.8 |
| 450 | 165.7 | 159.9 | 157.1 | 158.5 | 139.1 | 122.7 | 114.9 | 103.6 |
| 400 | 160.0 | 153.0 | 134.4 | 124.2 | 113.3 | 96.0 | 88.2 | 85.6 |
| 350 | | 184.9 | 131.2 | 125.5 | 122.1 | 129.1 | 182.2 | 169.5 |
| 300 | | 329.3 | 306.0 | | | | | |
| LONG | -65.10 | -64.87 | -64.69 | -64.50 | -64.32 | -64.14 | -63.96 | -63.77 |
| LAT | 9.95 | 7.59 | 5.62 | 3.66 | 1.69 | -0.28 | -2.24 | -4.21 |
| QUAL | 23 | 23 | 23 | 23 | 12 | 12 | 12 | 12 |

PASS 3771 AT QUITOE, 63 7 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 143559 | 143634 | 143709 | 143744 | 143819 | 143854 | 143931 | 144004 |
| 1000 | 0.188 | 0.163 | 0.191 | 0.174 | 0.186 | 0.188 | 0.187 | 0.171 |
| 950 | 0.203 | 0.176 | 0.209 | 0.192 | 0.202 | 0.202 | 0.199 | 0.184 |
| 900 | 0.224 | 0.197 | 0.230 | 0.212 | 0.223 | 0.221 | 0.217 | 0.198 |
| 850 | 0.250 | 0.226 | 0.257 | 0.237 | 0.248 | 0.246 | 0.238 | 0.214 |
| 800 | 0.280 | 0.258 | 0.286 | 0.265 | 0.276 | 0.272 | 0.261 | 0.234 |
| 750 | 0.314 | 0.297 | 0.320 | 0.297 | 0.307 | 0.302 | 0.288 | 0.264 |
| 700 | 0.359 | 0.367 | 0.366 | 0.340 | 0.354 | 0.344 | 0.325 | 0.301 |
| 650 | 0.421 | 0.460 | 0.437 | 0.408 | 0.433 | 0.413 | 0.384 | 0.353 |
| 600 | 0.518 | 0.601 | 0.535 | 0.504 | 0.559 | 0.507 | 0.472 | 0.426 |
| 550 | 0.645 | 0.800 | 0.717 | 0.659 | 0.756 | 0.682 | 0.640 | 0.516 |
| 500 | 0.970 | 1.208 | 1.037 | 0.960 | 1.085 | 0.940 | 0.930 | 0.797 |
| 450 | 1.569 | 2.002 | 1.759 | 1.607 | 1.871 | 1.617 | 1.459 | 1.283 |
| 400 | 3.015 | 3.339 | 3.079 | 2.886 | 3.292 | 3.004 | 2.630 | 2.258 |
| 350 | 4.914 | 4.739 | 4.353 | 4.286 | 4.784 | 5.170 | 4.754 | 4.010 |
| 300 | | | | | 5.576 | | 6.954 | 6.642 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 561.1 | 527.4 | 523.6 | 500.2 | 546.7 | 612.5 | 677.2 | 660.1 |
| 900 | 516.5 | 461.0 | 499.9 | 476.1 | 512.7 | 561.5 | 598.7 | 644.8 |
| 850 | 471.9 | 394.7 | 476.2 | 463.3 | 485.0 | 512.1 | 541.8 | 574.6 |
| 800 | 437.6 | 342.8 | 446.5 | 441.3 | 448.7 | 475.4 | 507.5 | 478.5 |
| 750 | 406.2 | 293.0 | 405.2 | 402.8 | 405.9 | 418.8 | 473.3 | 421.0 |
| 700 | 343.4 | 256.4 | 319.2 | 307.4 | 304.2 | 319.1 | 354.7 | 363.5 |
| 650 | 275.6 | 219.8 | 269.4 | 263.3 | 243.4 | 269.4 | 273.6 | 308.4 |
| 600 | 230.9 | 187.4 | 223.6 | 223.8 | 201.8 | 219.7 | 212.3 | 255.9 |
| 550 | 186.1 | 157.3 | 171.9 | 180.8 | 161.6 | 174.8 | 165.2 | 203.4 |
| 500 | 137.1 | 118.3 | 120.4 | 130.1 | 123.9 | 131.1 | 128.4 | 133.6 |
| 450 | 91.1 | 98.2 | 93.2 | 91.6 | 86.3 | 88.7 | 102.4 | 99.8 |
| 400 | 83.1 | 113.4 | 105.3 | 99.1 | 107.3 | 82.8 | 83.5 | 82.3 |
| 350 | 230.0 | 371.1 | 285.3 | 243.0 | 234.7 | 127.5 | 96.7 | 91.5 |
| 300 | | | | | | | | 134.9 |
| LONG | -63.59 | -63.40 | -63.21 | -63.02 | -62.82 | -62.61 | -62.39 | -62.18 |
| LAT | -6.17 | -8.14 | -10.11 | -12.07 | -14.03 | -15.99 | -18.07 | -19.91 |
| QUAL | 13 | 12 | 12 | 13 | 13 | 13 | 22 | 13 |

PASS 3771 AT QUITOE, 63 7 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 144022 |
| 1000 | 0.171 |
| 950 | 0.186 |
| 900 | 0.202 |
| 850 | 0.219 |
| 800 | 0.238 |
| 750 | 0.264 |
| 700 | 0.295 |
| 650 | 0.331 |
| 600 | 0.418 |
| 550 | 0.532 |
| 500 | 0.749 |
| 450 | 1.218 |
| 400 | 2.083 |
| 350 | 3.875 |
| 300 | 6.709 |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 605.5 |
| 900 | 611.9 |
| 850 | 581.1 |
| 800 | 511.7 |
| 750 | 456.1 |
| 700 | 400.4 |
| 650 | 344.7 |
| 600 | 270.3 |
| 550 | 195.8 |
| 500 | 121.3 |
| 450 | 102.6 |
| 400 | 86.9 |
| 350 | 84.1 |
| 300 | 133.0 |

| | |
|---|---|
| LONG | -62.06 |
| LAT | -20.92 |
| QUAL | 13 |

PASS 3771 AT AGASTA, 63 7 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 143820 | 143855 | 143913 | 143948 | 144023 | 144040 | 144117 | 144152 |
| 1000 | 0.159 | 0.149 | 0.157 | 0.158 | 0.153 | 0.141 | 0.125 | 0.117 |
| 950 | 0.176 | 0.165 | 0.173 | 0.172 | 0.169 | 0.155 | 0.136 | 0.131 |
| 900 | 0.195 | 0.182 | 0.190 | 0.186 | 0.185 | 0.173 | 0.150 | 0.145 |
| 850 | 0.219 | 0.204 | 0.211 | 0.204 | 0.201 | 0.190 | 0.166 | 0.159 |
| 800 | 0.247 | 0.230 | 0.235 | 0.225 | 0.219 | 0.207 | 0.185 | 0.177 |
| 750 | 0.278 | 0.258 | 0.263 | 0.250 | 0.242 | 0.226 | 0.204 | 0.197 |
| 700 | 0.320 | 0.294 | 0.299 | 0.278 | 0.272 | 0.254 | 0.226 | 0.220 |
| 650 | 0.379 | 0.349 | 0.350 | 0.323 | 0.308 | 0.291 | 0.251 | 0.247 |
| 600 | 0.503 | 0.435 | 0.452 | 0.390 | 0.379 | 0.338 | 0.286 | 0.279 |
| 550 | 0.677 | 0.579 | 0.630 | 0.513 | 0.479 | 0.422 | 0.352 | 0.322 |
| 500 | 1.011 | 0.841 | 0.931 | 0.770 | 0.696 | 0.580 | 0.456 | 0.400 |
| 450 | 1.870 | 1.449 | 1.502 | 1.253 | 1.094 | 0.926 | 0.668 | 0.526 |
| 400 | 3.371 | 2.829 | 2.895 | 2.186 | 1.855 | 1.508 | 1.133 | 0.842 |
| 350 | 4.870 | 5.128 | 5.065 | 3.976 | 3.495 | | 1.846 | 1.349 |
| 300 | | | | 6.596 | 6.040 | | 3.183 | 2.337 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 471.0 | 483.3 | 528.4 | 603.4 | | 535.2 | 536.5 | |
| 900 | 451.7 | 468.0 | 505.2 | 563.1 | 563.6 | 522.9 | 513.7 | 494.7 |
| 850 | 442.0 | 452.1 | 473.4 | 508.7 | 579.9 | 552.4 | 499.1 | 479.5 |
| 800 | 432.3 | 436.3 | 451.0 | 476.1 | 519.6 | 572.7 | 495.2 | 470.8 |
| 750 | 384.7 | 404.7 | 411.7 | 443.5 | 454.6 | 452.4 | 499.9 | 462.2 |
| 700 | 314.6 | 330.7 | 343.3 | 410.9 | 394.3 | 404.2 | 483.8 | 453.5 |
| 650 | 240.8 | 263.3 | 260.9 | 329.0 | 334.1 | 357.3 | 408.8 | 427.0 |
| 600 | 199.4 | 215.7 | 203.8 | 228.1 | 266.7 | 310.4 | 310.7 | 378.7 |
| 550 | 158.0 | 169.3 | 159.5 | 154.1 | 198.1 | 225.4 | 243.7 | 288.0 |
| 500 | 105.9 | 124.6 | 124.4 | 124.3 | 146.2 | 138.3 | 175.8 | 220.5 |
| 450 | 82.8 | 89.4 | 92.8 | 101.9 | 106.6 | 105.3 | 116.4 | 160.5 |
| 400 | 102.4 | 73.8 | 78.9 | 86.4 | 88.1 | 90.5 | 98.8 | 101.8 |
| 350 | 228.0 | 125.3 | 124.9 | 88.5 | 85.5 | | 98.7 | 102.8 |
| 300 | | | | 154.0 | 104.6 | | 92.1 | 87.0 |
| LONG | -62.81 | -62.61 | -62.50 | -62.28 | -62.06 | -61.94 | -61.69 | -61.44 |
| LAT | -14.09 | -16.05 | -17.06 | -19.02 | -20.98 | -21.93 | -24.00 | -25.96 |
| QUAL | 23 | 22 | 23 | 23 | 23 | 23 | 23 | 22 |

PASS 3771 AT AGASTA, 63 7 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 144210 | 144245 | 144302 | 144337 | 144410 | 144505 | 144632 |
| 1000 | 0.119 | 0.110 | 0.125 | 0.110 | 0.100 | 0.071 | 0.107 |
| 950 | 0.132 | 0.121 | 0.134 | 0.117 | 0.107 | 0.077 | 0.113 |
| 900 | 0.145 | 0.133 | 0.143 | 0.127 | 0.115 | 0.085 | 0.120 |
| 850 | 0.160 | 0.147 | 0.154 | 0.139 | 0.123 | 0.094 | 0.128 |
| 800 | 0.177 | 0.162 | 0.167 | 0.152 | 0.134 | 0.104 | 0.138 |
| 750 | 0.196 | 0.181 | 0.182 | 0.167 | 0.146 | 0.115 | 0.152 |
| 700 | 0.219 | 0.202 | 0.199 | 0.186 | 0.165 | 0.128 | 0.172 |
| 650 | 0.248 | 0.227 | 0.230 | 0.209 | 0.196 | 0.145 | 0.200 |
| 600 | 0.286 | 0.260 | 0.271 | 0.240 | 0.235 | 0.165 | 0.235 |
| 550 | 0.332 | 0.309 | 0.323 | 0.288 | 0.285 | 0.196 | 0.276 |
| 500 | 0.407 | 0.382 | 0.398 | 0.366 | 0.359 | 0.245 | 0.364 |
| 450 | 0.558 | 0.530 | 0.555 | 0.504 | 0.449 | 0.338 | 0.503 |
| 400 | 0.855 | 0.782 | 0.811 | 0.711 | 0.626 | 0.479 | 0.736 |
| 350 | 1.309 | 1.179 | 1.172 | 1.028 | 0.922 | 0.702 | 1.161 |
| 300 | 2.252 | 1.857 | 1.877 | 1.579 | 1.370 | 1.055 | 1.992 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 498.9 | 512.2 | 734.1 | 692.5 | 801.1 | 532.5 | 885.5 |
| 900 | 501.8 | 512.5 | 710.6 | 599.1 | 698.7 | 519.2 | 798.9 |
| 850 | 489.6 | 494.4 | 639.7 | 564.6 | 624.0 | 511.4 | 691.5 |
| 800 | 469.3 | 471.5 | 578.3 | 537.8 | 547.6 | 498.4 | 573.3 |
| 750 | 447.0 | 449.5 | 517.0 | 505.4 | 471.1 | 459.3 | 474.8 |
| 700 | 424.8 | 428.1 | 455.7 | 454.2 | 407.6 | 423.4 | 382.3 |
| 650 | 390.9 | 406.7 | 393.1 | 386.8 | 354.7 | 388.5 | 333.6 |
| 600 | 347.0 | 338.1 | 330.5 | 315.6 | 301.7 | 353.6 | 295.7 |
| 550 | 303.0 | 258.0 | 267.3 | 255.0 | 254.2 | 277.5 | 257.8 |
| 500 | 221.0 | 197.6 | 202.5 | 203.8 | 225.0 | 194.0 | 192.7 |
| 450 | 143.6 | 153.3 | 152.6 | 167.3 | 195.9 | 166.3 | 147.4 |
| 400 | 115.9 | 129.8 | 130.6 | 143.9 | 138.1 | 142.5 | 121.5 |
| 350 | 109.4 | 119.1 | 122.9 | 127.2 | 127.1 | 125.9 | 103.1 |
| 300 | 86.2 | 97.1 | 102.9 | 106.2 | 109.7 | 111.9 | 94.9 |
| LONG | -61.30 | -61.03 | -60.89 | -60.59 | -60.29 | -59.75 | -58.75 |
| LAT | -26.97 | -28.91 | -29.86 | -31.82 | -33.65 | -36.71 | -41.53 |
| QUAL | 23 | 23 | 33 | 23 | 22 | 23 | 23 |

PASS 3771 AT SOLANT, 63 7 2

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 144245 | 144337 |
| 1000 | 0.120 | 0.110 |
| 950 | 0.131 | 0.120 |
| 900 | 0.143 | 0.131 |
| 850 | 0.156 | 0.143 |
| 800 | 0.171 | 0.157 |
| 750 | 0.189 | 0.172 |
| 700 | 0.212 | 0.190 |
| 650 | 0.240 | 0.211 |
| 600 | 0.272 | 0.242 |
| 550 | 0.320 | 0.283 |
| 500 | 0.382 | 0.367 |
| 450 | 0.510 | 0.494 |
| 400 | 0.756 | 0.710 |
| 350 | 1.151 | 1.077 |
| 300 | 1.924 | 1.713 |
| **HEIGHT** | **SCALE HEIGHT, KM** | |
| 950 | 576.2 | 553.9 |
| 900 | 567.5 | 555.6 |
| 850 | 535.6 | 550.5 |
| 800 | 502.2 | 542.0 |
| 750 | 468.9 | 521.5 |
| 700 | 435.8 | 495.4 |
| 650 | 402.6 | 410.5 |
| 600 | 367.1 | 335.9 |
| 550 | 305.3 | 263.4 |
| 500 | 239.0 | 206.3 |
| 450 | 152.6 | 138.4 |
| 400 | 118.1 | 131.2 |
| 350 | 112.6 | 116.6 |
| 300 | 85.9 | 95.8 |
| LONG | -61.03 | -60.59 |
| LAT | -23.91 | -31.82 |
| QUAL | 23 | 23 |

PASS 3778 AT QUITOE, 63 7 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 34618 | 34653 | 34728 | 34803 | 34855 | 34930 | 34948 | 35023 |
| 1000 | 0.097 | 0.099 | 0.100 | 0.117 | 0.109 | 0.110 | 0.116 | 0.113 |
| 950 | 0.102 | 0.105 | 0.106 | 0.124 | 0.112 | 0.112 | 0.120 | 0.123 |
| 900 | 0.106 | 0.109 | 0.110 | 0.128 | 0.116 | 0.115 | 0.123 | 0.127 |
| 850 | 0.111 | 0.115 | 0.116 | 0.133 | 0.121 | 0.119 | 0.128 | 0.132 |
| 800 | 0.118 | 0.122 | 0.123 | 0.140 | 0.127 | 0.124 | 0.135 | 0.138 |
| 750 | 0.126 | 0.131 | 0.135 | 0.151 | 0.138 | 0.141 | 0.143 | 0.146 |
| 700 | 0.138 | 0.140 | 0.154 | 0.172 | 0.152 | 0.167 | 0.154 | 0.154 |
| 650 | 0.158 | 0.158 | 0.177 | 0.199 | 0.174 | 0.191 | 0.171 | 0.169 |
| 600 | 0.185 | 0.192 | 0.214 | 0.237 | 0.209 | 0.216 | 0.200 | 0.196 |
| 550 | 0.227 | 0.251 | 0.299 | 0.376 | 0.287 | 0.323 | 0.277 | 0.245 |
| 500 | 0.343 | 0.353 | 0.482 | 0.549 | 0.424 | 0.481 | 0.419 | 0.387 |
| 450 | 0.585 | 0.523 | 0.698 | 0.769 | 0.697 | 0.736 | 0.674 | 0.747 |
| 400 | 1.058 | 0.909 | 1.126 | 1.364 | 1.238 | 1.363 | 1.254 | 1.186 |
| 350 | 1.660 | 1.581 | 1.775 | | 2.049 | | 1.984 | 1.847 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 1364.6 | | 1143.4 | 1329.7 | 1960.1 | 2205.9 | 1523.4 | |
| 900 | 1144.3 | 1113.5 | 1021.5 | 1272.4 | 1490.9 | 1786.4 | 1339.8 | 1247.5 |
| 850 | 909.0 | 872.3 | 854.4 | 1029.2 | 1071.9 | 1318.0 | 1106.6 | 1101.7 |
| 800 | 790.7 | 782.7 | 687.2 | 824.3 | 807.4 | 861.6 | 966.1 | 995.7 |
| 750 | 672.4 | 693.0 | 565.5 | 629.7 | 633.0 | 629.4 | 825.6 | 889.7 |
| 700 | 546.2 | 603.4 | 454.8 | 455.8 | 462.6 | 397.1 | 629.1 | 774.8 |
| 650 | 409.3 | 354.4 | 344.0 | 309.4 | 344.9 | 323.5 | 407.2 | 446.2 |
| 600 | 287.0 | 239.1 | 236.8 | 209.6 | 240.9 | 271.6 | 244.3 | 309.8 |
| 550 | 206.3 | 175.2 | 152.1 | 129.2 | 166.4 | 140.2 | 159.4 | 192.9 |
| 500 | 121.5 | 147.9 | 115.5 | 122.7 | 121.8 | 114.5 | 119.4 | 108.6 |
| 450 | 91.2 | 119.3 | 118.7 | 118.4 | 99.0 | 103.1 | 98.1 | 93.4 |
| 400 | 93.3 | 91.8 | 103.4 | 101.0 | 95.2 | 112.2 | 96.5 | 111.1 |
| 350 | 142.2 | 99.5 | 121.0 | | 98.8 | | 139.3 | 169.0 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -82.88 | -82.70 | -82.51 | -82.32 | -82.03 | -81.83 | -81.73 | -81.52 |
| LAT | 2.39 | 4.36 | 6.35 | 8.33 | 11.28 | 13.25 | 14.27 | 16.25 |
| QUAL | 23 | 33 | 33 | 23 | 23 | 23 | 13 | 13 |

PASS 3778 AT QUITOE, 63 7 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 35115 | 35150 | 35225 | 35300 | 35318 | 35353 |
| 1000 | 0.101 | 0.093 | 0.086 | 0.089 | 0.097 | 0.071 |
| 950 | 0.103 | 0.100 | 0.091 | 0.097 | 0.100 | 0.076 |
| 900 | 0.107 | 0.106 | 0.098 | 0.102 | 0.104 | 0.082 |
| 850 | 0.110 | 0.111 | 0.105 | 0.106 | 0.108 | 0.089 |
| 800 | 0.114 | 0.115 | 0.112 | 0.113 | 0.115 | 0.097 |
| 750 | 0.120 | 0.120 | 0.120 | 0.123 | 0.124 | 0.107 |
| 700 | 0.127 | 0.126 | 0.129 | 0.135 | 0.137 | 0.122 |
| 650 | 0.137 | 0.135 | 0.143 | 0.151 | 0.154 | 0.147 |
| 600 | 0.148 | 0.146 | 0.172 | 0.179 | 0.180 | 0.185 |
| 550 | 0.174 | 0.221 | 0.246 | 0.217 | 0.232 | 0.258 |
| 500 | 0.209 | 0.288 | 0.384 | 0.276 | 0.342 | 0.394 |
| 450 | 0.273 | 0.432 | 0.633 | 0.392 | 0.559 | 0.704 |
| 400 | 0.418 | 0.815 | 1.058 | 0.599 | 0.947 | 1.214 |
| 350 | 0.688 | 1.302 | | 0.959 | 1.531 | 1.910 |
| 300 | 1.121 | 1.976 | | 1.546 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 1828.5 | | 853.3 | 805.9 | 1615.1 | 713.7 |
| 900 | 1549.7 | | 770.2 | 1341.4 | 1234.0 | 663.4 |
| 850 | 1392.1 | 1203.0 | 752.9 | 1092.9 | 993.8 | 631.2 |
| 800 | 1192.5 | 1257.4 | 748.1 | 751.9 | 805.6 | 539.3 |
| 750 | 989.5 | 1115.3 | 682.2 | 554.5 | 633.6 | 439.5 |
| 700 | 791.3 | 914.5 | 570.1 | 473.3 | 474.8 | 330.2 |
| 650 | 630.4 | 712.3 | 430.0 | 388.3 | 378.5 | 255.9 |
| 600 | 469.5 | 482.0 | 161.6 | 298.7 | 278.1 | 196.1 |
| 550 | 371.5 | 152.7 | 125.3 | 236.6 | 167.1 | 147.3 |
| 500 | 274.7 | 133.7 | 105.9 | 183.6 | 119.9 | 99.8 |
| 450 | 188.4 | 105.1 | 99.5 | 134.9 | 98.3 | 93.8 |
| 400 | 126.8 | 94.1 | 107.4 | 111.6 | 101.0 | 102.1 |
| 350 | 108.6 | 113.3 | | 106.8 | 112.5 | 119.5 |
| 300 | 109.0 | 171.6 | | 102.[illegible] | | |
| LONG | -81.19 | -80.96 | -80.72 | -80.47 | -80.33 | -80.06 |
| LAT | 19.19 | 21.16 | 23.14 | 25.12 | 26.13 | 28.11 |
| QUAL | 23 | 33 | 33 | 23 | 33 | 33 |

PASS 3779 AT RESLUT, 63 7 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 40501 | 40518 | 40559 | 40614 | 40634 | 40652 | 40709 | 40726 |
| 1000 | 0.072 | 0.057 | 0.083 | 0.071 | 0.096 | 0.080 | 0.128 | 0.112 |
| 950 | 0.090 | 0.067 | 0.106 | 0.093 | 0.120 | 0.098 | 0.154 | 0.138 |
| 900 | 0.111 | 0.086 | 0.131 | 0.114 | 0.144 | 0.120 | 0.186 | 0.166 |
| 850 | 0.137 | 0.113 | 0.163 | 0.143 | 0.177 | 0.146 | 0.225 | 0.200 |
| 800 | 0.170 | 0.146 | 0.200 | 0.177 | 0.215 | 0.177 | 0.273 | 0.242 |
| 750 | 0.212 | 0.184 | 0.254 | 0.219 | 0.265 | 0.217 | 0.332 | 0.293 |
| 700 | 0.262 | 0.229 | 0.318 | 0.275 | 0.323 | 0.263 | 0.400 | 0.353 |
| 650 | 0.349 | 0.289 | 0.394 | 0.341 | 0.405 | 0.316 | 0.530 | 0.427 |
| 600 | 0.471 | 0.361 | 0.528 | 0.438 | 0.532 | 0.391 | 0.701 | 0.570 |
| 550 | 0.660 | 0.501 | 0.731 | 0.610 | 0.689 | 0.519 | 0.965 | 0.751 |
| 500 | 0.936 | 0.706 | 1.031 | 0.828 | 0.931 | 0.676 | 1.360 | 1.037 |
| 450 | 1.357 | 1.014 | 1.449 | 1.175 | 1.251 | 0.952 | 2.015 | 1.460 |
| 400 | 1.898 | 1.484 | 1.985 | 1.668 | 1.762 | 1.412 | 2.884 | 2.120 |
| 350 | | 2.097 | | 2.378 | 2.462 | 2.283 | | 3.244 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 900 | 230.6 | 250.1 | 222.6 | 218.5 | 247.2 | 245.4 | 258.9 | 258.5 |
| 850 | 231.6 | 216.9 | 223.3 | 222.8 | 248.5 | 250.6 | 260.0 | 261.7 |
| 800 | 226.7 | 210.5 | 223.6 | 227.1 | 247.1 | 254.1 | 250.7 | 259.1 |
| 750 | 216.2 | 216.4 | 216.4 | 225.4 | 237.3 | 248.3 | 237.3 | 249.2 |
| 700 | 205.8 | 220.8 | 209.2 | 215.3 | 227.5 | 242.4 | 224.0 | 239.3 |
| 650 | 186.6 | 204.0 | 202.0 | 205.1 | 215.1 | 236.6 | 200.9 | 227.6 |
| 600 | 165.2 | 187.2 | 183.6 | 192.7 | 199.6 | 224.5 | 177.2 | 202.4 |
| 550 | 151.2 | 170.8 | 158.7 | 176.0 | 184.1 | 199.8 | 156.4 | 177.2 |
| 500 | 140.9 | 154.4 | 150.1 | 159.3 | 172.7 | 175.1 | 138.8 | 157.7 |
| 450 | 143.8 | 140.2 | 153.5 | 148.3 | 161.0 | 146.0 | 132.8 | 142.2 |
| 400 | 151.4 | 138.5 | 157.7 | 142.1 | 148.6 | 118.1 | 217.1 | 127.5 |
| 350 | | 148.2 | | 143.4 | 157.3 | 109.2 | | 558.6 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -67.17 | -66.25 | -64.34 | -62.99 | -61.56 | -60.28 | -58.83 | -57.18 |
| LAT | 64.81 | 65.69 | 67.80 | 68.55 | 69.55 | 70.45 | 71.28 | 72.08 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 3779 AT RESLUT, 63 7 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 40743 | 40801 | 40818 | 40835 | 40853 | 40912 | 40929 | 40947 |
| 1000 | 0.102 | 0.117 | 0.122 | 0.121 | 0.089 | 0.170 | 0.199 | 0.169 |
| 950 | 0.124 | 0.148 | 0.148 | 0.148 | 0.116 | 0.207 | 0.224 | 0.193 |
| 900 | 0.150 | 0.179 | 0.178 | 0.178 | 0.142 | 0.245 | 0.248 | 0.222 |
| 850 | 0.181 | 0.214 | 0.216 | 0.211 | 0.174 | 0.289 | 0.283 | 0.258 |
| 800 | 0.216 | 0.262 | 0.260 | 0.251 | 0.214 | 0.344 | 0.335 | 0.302 |
| 750 | 0.259 | 0.317 | 0.311 | 0.297 | 0.260 | 0.412 | 0.401 | 0.357 |
| 700 | 0.317 | 0.389 | 0.368 | 0.351 | 0.317 | 0.495 | 0.492 | 0.431 |
| 650 | 0.385 | 0.479 | 0.455 | 0.423 | 0.394 | 0.591 | 0.614 | 0.528 |
| 600 | 0.463 | 0.585 | 0.568 | 0.536 | 0.485 | 0.760 | 0.771 | 0.656 |
| 550 | 0.596 | 0.792 | 0.704 | 0.673 | 0.590 | 1.017 | 1.011 | 0.817 |
| 500 | 0.820 | 1.073 | 0.959 | 0.881 | 0.733 | 1.433 | 1.334 | 1.064 |
| 450 | 1.125 | 1.496 | 1.314 | 1.188 | 0.978 | 2.016 | 1.772 | 1.407 |
| 400 | 1.603 | 2.124 | 1.818 | 1.607 | 1.286 | 2.809 | 2.348 | 1.890 |
| 350 | 2.309 | | 2.559 | 2.176 | 1.678 | | | 2.493 |
| 300 | | | | 2.944 | 2.247 | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 900 | 258.4 | 242.1 | 266.0 | 277.3 | 229.7 | 283.2 | 427.6 | 345.6 |
| 850 | 261.6 | 255.1 | 267.7 | 283.5 | 239.3 | 287.4 | 349.0 | 325.9 |
| 800 | 264.9 | 252.5 | 266.6 | 280.4 | 241.6 | 280.0 | 292.0 | 310.0 |
| 750 | 263.9 | 249.9 | 261.7 | 273.7 | 243.9 | 268.2 | 261.0 | 289.5 |
| 700 | 252.0 | 239.0 | 256.8 | 267.0 | 244.4 | 253.0 | 234.4 | 251.8 |
| 650 | 240.0 | 225.6 | 240.8 | 254.7 | 239.3 | 237.9 | 220.7 | 236.7 |
| 600 | 228.1 | 212.2 | 222.6 | 232.1 | 234.2 | 207.2 | 206.5 | 226.7 |
| 550 | 207.6 | 184.6 | 204.4 | 209.5 | 229.2 | 167.2 | 188.7 | 215.3 |
| 500 | 178.4 | 160.4 | 183.0 | 190.3 | 219.6 | 154.3 | 180.0 | 187.1 |
| 450 | 153.0 | 151.1 | 160.8 | 173.9 | 198.7 | 151.0 | 178.1 | 174.4 |
| 400 | 140.4 | 154.9 | 147.5 | 167.3 | 184.0 | 196.0 | 183.8 | 175.3 |
| 350 | 155.4 | | 271.4 | 166.5 | 181.0 | | | 185.1 |
| 300 | | | | 223.3 | 166.0 | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -55.52 | -53.73 | -51.41 | -49.08 | -46.62 | -43.32 | -40.01 | -36.50 |
| LAT | 72.89 | 73.74 | 74.48 | 75.22 | 76.01 | 76.75 | 77.37 | 78.03 |
| QUAL | 22 | 22 | 22 | 23 | 22 | 22 | 22 | 22 |

PASS 3779 AT RESLUT, 63 7 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 41004 | 41022 | 41039 | 41056 | 41114 | 41132 | 41149 | 41207 |
| 1000 | 0.167 | 0.211 | 0.161 | 0.220 | 0.220 | 0.229 | 0.243 | 0.229 |
| 950 | 0.192 | 0.236 | 0.187 | 0.245 | 0.242 | 0.249 | 0.266 | 0.248 |
| 900 | 0.216 | 0.262 | 0.214 | 0.274 | 0.276 | 0.280 | 0.298 | 0.270 |
| 850 | 0.243 | 0.295 | 0.246 | 0.311 | 0.317 | 0.322 | 0.344 | 0.306 |
| 800 | 0.283 | 0.344 | 0.288 | 0.358 | 0.370 | 0.370 | 0.395 | 0.347 |
| 750 | 0.335 | 0.407 | 0.341 | 0.417 | 0.442 | 0.437 | 0.458 | 0.403 |
| 700 | 0.402 | 0.493 | 0.409 | 0.496 | 0.539 | 0.526 | 0.545 | 0.477 |
| 650 | 0.490 | 0.611 | 0.498 | 0.604 | 0.668 | 0.642 | 0.662 | 0.579 |
| 600 | 0.610 | 0.763 | 0.620 | 0.739 | 0.848 | 0.791 | 0.815 | 0.715 |
| 550 | 0.762 | 0.972 | 0.778 | 0.925 | 1.094 | 1.003 | 1.030 | 0.888 |
| 500 | 0.967 | 1.269 | 1.004 | 1.189 | 1.473 | 1.309 | 1.349 | 1.128 |
| 450 | 1.253 | 1.680 | 1.321 | 1.574 | 2.018 | 1.723 | 1.792 | 1.465 |
| 400 | 1.682 | 2.226 | 1.742 | 2.116 | 2.756 | 2.302 | 2.396 | 1.928 |
| 350 | 2.311 | 2.806 | 2.316 | | | 2.972 | 3.057 | 2.515 |
| 300 | | | 3.016 | | | | | 3.097 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 401.3 | 477.5 | 355.5 | 452.3 | 442.8 | 494.2 | 483.1 | 596.7 |
| 900 | 395.7 | 442.7 | 360.7 | 416.9 | 366.2 | 408.5 | 410.3 | 494.4 |
| 850 | 370.8 | 378.8 | 337.8 | 379.7 | 345.2 | 357.3 | 360.5 | 400.5 |
| 800 | 323.7 | 319.4 | 310.6 | 342.5 | 296.7 | 326.0 | 348.3 | 366.5 |
| 750 | 289.4 | 273.7 | 285.8 | 304.4 | 264.1 | 289.0 | 303.1 | 310.5 |
| 700 | 261.5 | 246.7 | 260.9 | 267.0 | 242.9 | 263.6 | 276.4 | 275.0 |
| 650 | 238.7 | 234.1 | 240.6 | 255.1 | 226.6 | 249.2 | 258.3 | 253.6 |
| 600 | 231.2 | 219.7 | 228.9 | 243.5 | 207.5 | 231.1 | 234.6 | 240.9 |
| 550 | 221.3 | 198.5 | 213.9 | 215.2 | 186.3 | 201.9 | 200.7 | 225.9 |
| 500 | 202.9 | 186.7 | 190.3 | 191.3 | 167.7 | 190.0 | 184.8 | 204.3 |
| 450 | 184.3 | 180.6 | 182.6 | 176.4 | 160.1 | 177.5 | 173.6 | 189.7 |
| 400 | 164.3 | 198.4 | 178.0 | 171.2 | 198.3 | 183.9 | 181.1 | 188.4 |
| 350 | 154.4 | 263.6 | 184.5 | | | 212.0 | 257.2 | 215.3 |
| 300 | | | 245.5 | | | | | 279.0 |
| LONG | -32.89 | -28.05 | -23.47 | -18.90 | -13.23 | -7.33 | -1.76 | 4.11 |
| LAT | 78.60 | 79.05 | 79.48 | 79.91 | 80.13 | 80.28 | 80.42 | 80.43 |
| QUAL | 32 | 32 | 33 | 33 | 32 | 33 | 33 | 32 |

PASS 3779 AT RESLUT, 63 7 3

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 41225 | 41241 | 41258 | 41315 | 41332 | 41351 | 41409 | 41426 |
| 1000 | 0.253 | 0.238 | 0.206 | 0.163 | 0.187 | 0.174 | 0.214 | 0.189 |
| 950 | 0.278 | 0.264 | 0.230 | 0.191 | 0.204 | 0.198 | 0.243 | 0.215 |
| 900 | 0.317 | 0.293 | 0.259 | 0.219 | 0.228 | 0.226 | 0.281 | 0.244 |
| 850 | 0.369 | 0.331 | 0.293 | 0.251 | 0.263 | 0.261 | 0.330 | 0.281 |
| 800 | 0.426 | 0.382 | 0.335 | 0.287 | 0.302 | 0.303 | 0.391 | 0.328 |
| 750 | 0.503 | 0.445 | 0.387 | 0.331 | 0.351 | 0.359 | 0.467 | 0.387 |
| 700 | 0.610 | 0.525 | 0.453 | 0.386 | 0.420 | 0.434 | 0.569 | 0.461 |
| 650 | 0.744 | 0.634 | 0.541 | 0.467 | 0.510 | 0.534 | 0.698 | 0.571 |
| 600 | 0.931 | 0.770 | 0.659 | 0.570 | 0.624 | 0.667 | 0.894 | 0.711 |
| 550 | 1.190 | 0.969 | 0.816 | 0.732 | 0.773 | 0.838 | 1.174 | 0.921 |
| 500 | 1.552 | 1.239 | 1.021 | 0.940 | 0.985 | 1.079 | 1.612 | 1.230 |
| 450 | 2.042 | 1.612 | 1.315 | 1.209 | 1.281 | 1.428 | 2.264 | 1.684 |
| 400 | 2.722 | 2.124 | 1.713 | 1.547 | 1.676 | 1.906 | 3.007 | 2.360 |
| 350 | | 2.709 | 2.240 | 1.964 | 2.182 | 2.501 | | |
| 300 | | | | 2.457 | | 3.104 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 457.6 | 472.2 | 430.4 | | 492.5 | 380.9 | 358.1 | 387.0 |
| 900 | 379.8 | 433.8 | 411.5 | 364.0 | 413.7 | 359.9 | 330.8 | 367.9 |
| 850 | 343.3 | 386.0 | 386.7 | 366.7 | 360.0 | 337.6 | 310.9 | 340.4 |
| 800 | 315.5 | 338.3 | 362.8 | 357.2 | 336.2 | 318.0 | 289.0 | 317.6 |
| 750 | 275.6 | 309.4 | 330.3 | 329.9 | 308.6 | 280.7 | 257.6 | 289.0 |
| 700 | 261.8 | 284.5 | 296.9 | 287.7 | 273.5 | 250.2 | 243.2 | 254.0 |
| 650 | 248.1 | 265.2 | 271.3 | 259.0 | 254.2 | 232.5 | 229.0 | 237.1 |
| 600 | 220.4 | 245.4 | 251.4 | 230.5 | 242.6 | 224.7 | 201.4 | 220.2 |
| 550 | 199.3 | 218.5 | 231.1 | 215.6 | 225.3 | 212.7 | 174.3 | 188.0 |
| 500 | 186.5 | 199.6 | 211.2 | 203.1 | 198.9 | 190.0 | 153.1 | 167.1 |
| 450 | 195.0 | 188.0 | 199.6 | 204.7 | 192.4 | 179.0 | 162.4 | 155.8 |
| 400 | 244.7 | 182.5 | 190.0 | 208.2 | 188.7 | 175.6 | 205.1 | 159.9 |
| 350 | | 194.2 | 217.9 | 215.3 | 199.4 | 210.3 | | |
| 300 | | | | 224.0 | | 244.9 | | |
| LONG | 9.90 | 15.06 | 20.54 | 25.04 | 29.42 | 34.31 | 38.29 | 41.42 |
| LAT | 80.23 | 80.05 | 79.86 | 79.43 | 78.97 | 78.45 | 77.86 | 77.22 |
| QUAL | 32 | 33 | 33 | 32 | 33 | 31 | 31 | 31 |

PASS 3799 AT COLEGE, 63 7 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 152218 | 152253 | 152328 | 152403 | 152438 | 152513 | 152548 | 152623 |
| 1000 | 0.215 | 0.203 | 0.185 | 0.201 | 0.225 | 0.238 | 0.239 | 0.245 |
| 950 | 0.244 | 0.225 | 0.209 | 0.231 | 0.251 | 0.267 | 0.269 | 0.277 |
| 900 | 0.277 | 0.255 | 0.240 | 0.264 | 0.284 | 0.300 | 0.299 | 0.315 |
| 850 | 0.315 | 0.292 | 0.276 | 0.301 | 0.323 | 0.339 | 0.332 | 0.356 |
| 800 | 0.358 | 0.336 | 0.316 | 0.347 | 0.369 | 0.383 | 0.375 | 0.402 |
| 750 | 0.412 | 0.385 | 0.363 | 0.404 | 0.427 | 0.446 | 0.427 | 0.458 |
| 700 | 0.485 | 0.443 | 0.427 | 0.470 | 0.493 | 0.525 | 0.486 | 0.528 |
| 650 | 0.571 | 0.531 | 0.503 | 0.545 | 0.570 | 0.618 | 0.591 | 0.610 |
| 600 | 0.684 | 0.640 | 0.603 | 0.658 | 0.702 | 0.746 | 0.722 | 0.716 |
| 550 | 0.824 | 0.773 | 0.736 | 0.819 | 0.865 | 0.908 | 0.878 | 0.857 |
| 500 | 0.993 | 0.946 | 0.898 | 1.013 | 1.059 | 1.106 | 1.055 | 1.028 |
| 450 | 1.201 | 1.154 | 1.120 | 1.257 | 1.288 | 1.358 | 1.273 | 1.249 |
| 400 | 1.469 | 1.430 | 1.400 | 1.573 | 1.615 | 1.688 | 1.547 | 1.523 |
| 350 | 1.810 | 1.794 | 1.761 | 1.985 | 2.038 | 2.093 | 1.832 | 1.847 |
| 300 | 2.176 | 2.282 | 2.267 | | | 2.562 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 386.7 | 414.4 | 377.9 | 356.5 | 410.1 | 413.9 | 444.0 | 389.4 |
| 900 | 386.7 | 394.8 | 362.9 | 352.3 | 396.1 | 408.3 | 435.6 | 392.0 |
| 850 | 373.0 | 375.3 | 353.5 | 348.2 | 382.0 | 383.5 | 419.9 | 386.5 |
| 800 | 357.3 | 356.0 | 345.0 | 338.7 | 365.1 | 358.6 | 390.3 | 381.0 |
| 750 | 339.4 | 336.8 | 333.3 | 325.9 | 343.6 | 337.6 | 360.6 | 368.0 |
| 700 | 318.6 | 317.6 | 313.4 | 313.1 | 322.2 | 316.8 | 331.0 | 349.3 |
| 650 | 297.8 | 298.7 | 293.5 | 300.2 | 300.7 | 295.9 | 305.9 | 330.6 |
| 600 | 286.3 | 279.9 | 275.6 | 281.0 | 279.4 | 280.3 | 280.8 | 310.5 |
| 550 | 277.9 | 263.8 | 259.4 | 257.0 | 258.0 | 266.6 | 267.3 | 288.9 |
| 500 | 268.0 | 254.3 | 244.0 | 236.6 | 246.2 | 251.8 | 267.9 | 270.4 |
| 450 | 255.5 | 244.1 | 232.1 | 229.2 | 237.9 | 236.4 | 262.2 | 260.0 |
| 400 | 246.3 | 230.1 | 220.7 | 221.6 | 226.1 | 235.2 | 278.1 | 263.5 |
| 350 | 256.0 | 218.7 | 210.0 | 266.6 | 256.5 | 243.7 | 509.0 | 296.0 |
| 300 | 462.2 | 210.2 | 210.5 | | | 263.0 | | |
| LONG | -172.99 | -161.27 | -150.68 | -140.59 | -132.88 | -126.02 | -120.59 | -116.20 |
| LAT | 80.38 | 80.33 | 79.77 | 79.04 | 77.89 | 76.62 | 75.18 | 73.61 |
| QUAL | 32 | 32 | 32 | 33 | 33 | 33 | 32 | 32 |

PASS 3799 AT COLEGE, 63 7 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 152658 | 152750 | 152825 | 152901 | 152936 | 153011 | 153046 | 153121 |
| 1000 | 0.236 | 0.251 | 0.249 | 0.327 | 0.287 | 0.283 | 0.269 | 0.387 |
| 950 | 0.263 | 0.275 | 0.281 | 0.368 | 0.316 | 0.315 | 0.300 | 0.418 |
| 900 | 0.295 | 0.309 | 0.315 | 0.411 | 0.351 | 0.348 | 0.334 | 0.451 |
| 850 | 0.330 | 0.352 | 0.354 | 0.457 | 0.389 | 0.387 | 0.374 | 0.490 |
| 800 | 0.370 | 0.403 | 0.398 | 0.510 | 0.433 | 0.433 | 0.420 | 0.540 |
| 750 | 0.426 | 0.464 | 0.456 | 0.578 | 0.490 | 0.486 | 0.476 | 0.597 |
| 700 | 0.491 | 0.534 | 0.525 | 0.659 | 0.557 | 0.562 | 0.545 | 0.671 |
| 650 | 0.567 | 0.612 | 0.615 | 0.752 | 0.643 | 0.654 | 0.634 | 0.801 |
| 600 | 0.662 | 0.726 | 0.729 | 0.906 | 0.752 | 0.771 | 0.741 | 0.963 |
| 550 | 0.830 | 0.864 | 0.868 | 1.097 | 0.887 | 0.940 | 0.876 | 1.157 |
| 500 | 1.035 | 1.042 | 1.049 | 1.344 | 1.057 | 1.150 | 1.052 | 1.382 |
| 450 | 1.266 | 1.264 | 1.276 | 1.644 | 1.268 | 1.402 | 1.263 | 1.730 |
| 400 | 1.556 | 1.562 | 1.553 | 2.011 | 1.537 | 1.675 | 1.520 | 2.295 |
| 350 | 1.804 | 1.897 | 1.887 | 2.432 | 1.823 | | 1.843 | 3.182 |
| 300 | | | 2.241 | | | | 2.295 | 4.300 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 439.6 | 438.2 | 422.9 | | 482.7 | 479.6 | 444.3 | 626.5 |
| 900 | 423.5 | 419.7 | 420.4 | 448.6 | 476.3 | 469.5 | 445.6 | 588.0 |
| 850 | 407.5 | 398.0 | 407.6 | 432.8 | 451.1 | 447.6 | 431.0 | 542.0 |
| 800 | 390.7 | 376.3 | 394.7 | 413.7 | 426.2 | 417.2 | 410.2 | 491.4 |
| 750 | 367.5 | 361.0 | 366.0 | 388.0 | 401.8 | 386.7 | 379.3 | 440.8 |
| 700 | 344.3 | 346.3 | 335.6 | 362.4 | 377.5 | 354.7 | 352.3 | 391.3 |
| 650 | 321.1 | 331.6 | 315.6 | 336.4 | 349.4 | 322.7 | 335.6 | 347.3 |
| 600 | 296.5 | 307.4 | 299.6 | 296.3 | 318.1 | 292.8 | 319.0 | 303.4 |
| 550 | 265.0 | 282.4 | 282.2 | 258.1 | 297.1 | 267.7 | 297.8 | 271.0 |
| 500 | 240.8 | 265.4 | 261.8 | 254.3 | 285.0 | 258.0 | 273.5 | 247.8 |
| 450 | 246.3 | 252.7 | 257.8 | 252.0 | 277.1 | 268.3 | 271.1 | 210.2 |
| 400 | 293.3 | 254.1 | 260.8 | 258.1 | 276.3 | 325.5 | 261.0 | 168.6 |
| 350 | 448.6 | 328.7 | 276.3 | 281.4 | 379.6 | | 247.7 | 162.3 |
| 300 | | | 371.5 | | | | 240.8 | 176.9 |
| LONG | -112.36 | -108.17 | -105.89 | -103.76 | -102.17 | -100.67 | -99.41 | -98.30 |
| LAT | 71.99 | 69.44 | 67.67 | 65.84 | 64.01 | 62.17 | 60.30 | 58.43 |
| QUAL | 32 | 32 | 32 | 32 | 33 | 32 | 33 | 32 |

PASS 3799 AT FTMYRS, 63 7 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 153812 | 153848 | 153923 | 153958 | 154033 | 154108 | 154143 | 154237 |
| 1000 | 0.215 | 0.188 | 0.199 | 0.202 | 0.188 | 0.205 | 0.210 | 0.210 |
| 950 | 0.250 | 0.220 | 0.231 | 0.234 | 0.221 | 0.234 | 0.241 | 0.238 |
| 900 | 0.293 | 0.262 | 0.272 | 0.273 | 0.259 | 0.273 | 0.279 | 0.274 |
| 850 | 0.343 | 0.311 | 0.317 | 0.320 | 0.304 | 0.318 | 0.324 | 0.316 |
| 800 | 0.407 | 0.369 | 0.371 | 0.375 | 0.358 | 0.372 | 0.377 | 0.364 |
| 750 | 0.491 | 0.438 | 0.442 | 0.442 | 0.427 | 0.441 | 0.447 | 0.421 |
| 700 | 0.606 | 0.534 | 0.534 | 0.534 | 0.517 | 0.530 | 0.537 | 0.502 |
| 650 | 0.752 | 0.662 | 0.660 | 0.659 | 0.640 | 0.649 | 0.652 | 0.606 |
| 600 | 0.965 | 0.834 | 0.831 | 0.821 | 0.799 | 0.814 | 0.814 | 0.744 |
| 550 | 1.283 | 1.080 | 1.078 | 1.054 | 1.048 | 1.044 | 1.040 | 0.942 |
| 500 | 1.792 | 1.466 | 1.468 | 1.441 | 1.426 | 1.404 | 1.407 | 1.233 |
| 450 | 2.558 | 2.045 | 2.082 | 2.049 | 2.033 | 2.003 | 1.994 | 1.724 |
| 400 | 3.573 | 2.878 | 2.939 | 2.938 | 2.960 | 2.943 | 2.913 | 2.501 |
| 350 | | 3.910 | 4.053 | 4.050 | 4.144 | 4.133 | 4.088 | 3.518 |
| 300 | | 4.597 | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 319.5 | 304.2 | 332.9 | 324.3 | 305.5 | 337.8 | 346.1 | 375.8 |
| 900 | 315.1 | 293.7 | 320.7 | 319.0 | 307.5 | 323.9 | 338.7 | 353.2 |
| 850 | 299.4 | 288.0 | 312.2 | 311.4 | 300.9 | 316.0 | 326.4 | 343.9 |
| 800 | 278.1 | 284.0 | 299.6 | 303.2 | 292.9 | 308.1 | 312.6 | 334.7 |
| 750 | 252.9 | 275.4 | 275.9 | 287.1 | 275.0 | 286.7 | 287.0 | 321.4 |
| 700 | 236.7 | 246.2 | 253.4 | 252.8 | 249.2 | 258.9 | 263.4 | 283.0 |
| 650 | 219.9 | 225.9 | 232.7 | 234.5 | 229.2 | 234.9 | 242.3 | 253.7 |
| 600 | 192.8 | 211.8 | 208.1 | 221.0 | 210.5 | 212.3 | 217.2 | 232.6 |
| 550 | 165.3 | 180.0 | 179.7 | 178.5 | 176.9 | 190.6 | 189.2 | 204.5 |
| 500 | 144.8 | 156.9 | 154.2 | 154.7 | 153.5 | 160.3 | 160.2 | 171.1 |
| 450 | 143.7 | 150.2 | 144.7 | 140.4 | 137.5 | 132.4 | 136.2 | 141.9 |
| 400 | 172.8 | 152.0 | 149.7 | 141.4 | 137.3 | 135.5 | 137.6 | 140.1 |
| 350 | | 194.4 | 180.3 | 197.0 | 181.9 | 182.7 | 170.4 | 166.0 |
| 300 | | 713.4 | | | | | | |
| LONG | -91.14 | -90.80 | -90.48 | -90.17 | -89.89 | -89.62 | -89.37 | -89.00 |
| LAT | 35.86 | 33.87 | 31.92 | 29.96 | 28.01 | 26.06 | 24.10 | 21.08 |
| QUAL | 23 | 21 | 32 | 32 | 32 | 32 | 32 | 33 |

PASS 3799 AT FTMYRS, 63 7 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 154347 | 154414 | 154457 | 154524 | 154607 | 154634 | 154727 | 154806 |
| 1000 | 0.220 | 0.239 | 0.244 | 0.236 | 0.253 | 0.265 | 0.312 | 0.306 |
| 950 | 0.250 | 0.272 | 0.276 | 0.268 | 0.284 | 0.301 | 0.340 | 0.335 |
| 900 | 0.286 | 0.310 | 0.313 | 0.306 | 0.322 | 0.345 | 0.374 | 0.376 |
| 850 | 0.328 | 0.355 | 0.356 | 0.350 | 0.366 | 0.395 | 0.413 | 0.426 |
| 800 | 0.376 | 0.406 | 0.406 | 0.399 | 0.416 | 0.452 | 0.472 | 0.490 |
| 750 | 0.437 | 0.470 | 0.466 | 0.462 | 0.485 | 0.519 | 0.548 | 0.565 |
| 700 | 0.519 | 0.551 | 0.547 | 0.543 | 0.574 | 0.616 | 0.640 | 0.652 |
| 650 | 0.627 | 0.657 | 0.654 | 0.665 | 0.695 | 0.739 | 0.803 | 0.796 |
| 600 | 0.768 | 0.798 | 0.795 | 0.825 | 0.846 | 0.940 | 1.011 | 1.103 |
| 550 | 0.977 | 1.010 | 1.030 | 1.098 | 1.098 | 1.202 | 1.354 | 1.553 |
| 500 | 1.287 | 1.328 | 1.423 | 1.502 | 1.503 | 1.655 | 1.963 | 2.374 |
| 450 | 1.787 | 1.878 | 2.092 | 2.136 | 2.283 | 2.490 | 3.256 | 3.909 |
| 400 | 2.538 | 2.744 | 3.104 | 3.036 | 3.754 | 4.220 | 5.432 | 6.050 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 379.4 | 379.3 | 396.4 | 381.8 | 412.9 | 366.2 | 541.6 | 475.7 |
| 900 | 366.1 | 371.5 | 384.0 | 378.2 | 392.7 | 365.1 | 486.1 | 429.3 |
| 850 | 353.[illegible] | 362.9 | 373.9 | 368.0 | 376.2 | 355.4 | 418.2 | 385.4 |
| 800 | 340.8 | 354.4 | 363.8 | 356.6 | 359.7 | 345.7 | 375.4 | 354.0 |
| 750 | 319.5 | 333.0 | 346.6 | 320.3 | 316.1 | 328.4 | 332.5 | 322.6 |
| 700 | 285.0 | 299.5 | 302.6 | 277.6 | 277.6 | 285.8 | 289.6 | 291.3 |
| 650 | 256.0 | 267.6 | 263.7 | 244.9 | 255.3 | 245.8 | 248.7 | 248.5 |
| 600 | 230.9 | 236.6 | 228.6 | 211.9 | 233.0 | 217.7 | 207.8 | 179.4 |
| 550 | 201.5 | 207.4 | 184.7 | 174.8 | 184.7 | 188.7 | 162.3 | 135.5 |
| 500 | 169.5 | 170.3 | 143.5 | 152.7 | 143.6 | 143.5 | 120.1 | 109.5 |
| 450 | 148.3 | 137.2 | 127.7 | 140.9 | 107.7 | 110.9 | 90.6 | 106.5 |
| 400 | 137.9 | 128.3 | 133.5 | 147.4 | 107.0 | 99.1 | 118.3 | 151.7 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -88.56 | -88.40 | -88.15 | -88.00 | -87.76 | -87.61 | -87.33 | -87.13 |
| LAT | 17.16 | 15.65 | 13.24 | 11.72 | 9.31 | 7.79 | 4.81 | 2.61 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 32 |

PASS 3799 AT FTMYRS, 63 7 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 154837 |
| 1000 | 0.294 |
| 950 | 0.324 |
| 900 | 0.361 |
| 850 | 0.404 |
| 800 | 0.454 |
| 750 | 0.531 |
| 700 | 0.629 |
| 650 | 0.768 |
| 600 | 0.976 |
| 550 | 1.372 |
| 500 | 2.226 |
| 450 | 3.724 |
| 400 | 6.047 |
| 350 | |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 474.3 |
| 900 | 447.4 |
| 850 | 407.8 |
| 800 | 368.0 |
| 750 | 326.6 |
| 700 | 285.1 |
| 650 | 240.6 |
| 600 | 192.4 |
| 550 | 127.3 |
| 500 | 100.7 |
| 450 | 96.0 |
| 400 | 138.4 |
| 350 | |
| 300 | |

| | |
|---|---|
| LONG | -86.96 |
| LAT | 0.88 |
| QUAL | 31 |

PASS 3799 AT QUITOE, 63 7 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 154634 | 154709 | 154744 | 154911 | 154946 | 155021 | 155056 |
| 1000 | 0.258 | 0.291 | 0.244 | 0.295 | 0.281 | 0.266 | 0.289 |
| 950 | 0.296 | 0.325 | 0.269 | 0.324 | 0.307 | 0.296 | 0.319 |
| 900 | 0.342 | 0.365 | 0.304 | 0.359 | 0.346 | 0.334 | 0.363 |
| 850 | 0.396 | 0.416 | 0.355 | 0.405 | 0.399 | 0.383 | 0.417 |
| 800 | 0.456 | 0.479 | 0.420 | 0.465 | 0.462 | 0.446 | 0.478 |
| 750 | 0.529 | 0.563 | 0.509 | 0.538 | 0.537 | 0.521 | 0.570 |
| 700 | 0.634 | 0.666 | 0.618 | 0.625 | 0.697 | 0.629 | 0.689 |
| 650 | 0.803 | 0.788 | 0.746 | 0.792 | 0.939 | 0.857 | 0.879 |
| 600 | 1.023 | 1.055 | 0.936 | 1.090 | 1.294 | 1.179 | 1.149 |
| 550 | 1.415 | 1.547 | 1.411 | 1.568 | 1.802 | 1.643 | 1.616 |
| 500 | 2.042 | 2.266 | 2.121 | 2.446 | 2.891 | 2.615 | 2.381 |
| 450 | 3.090 | 3.619 | 3.463 | 3.886 | 4.433 | 3.930 | 3.410 |
| 400 | 4.710 | 5.593 | 5.602 | 5.869 | 5.827 | 4.991 | 4.353 |
| 350 | | | | | | | |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 363.9 | 433.8 | 455.0 | 494.5 | 473.8 | 434.3 | 440.2 |
| 900 | 355.9 | 403.6 | 376.2 | 439.1 | 410.4 | 381.1 | 401.2 |
| 850 | 348.7 | 360.4 | 330.4 | 373.3 | 352.3 | 337.5 | 360.7 |
| 800 | 333.8 | 322.6 | 285.3 | 342.7 | 309.2 | 307.9 | 318.0 |
| 750 | 292.6 | 296.5 | 265.8 | 312.1 | 266.1 | 278.3 | 279.1 |
| 700 | 256.1 | 270.3 | 246.4 | 281.5 | 222.8 | 243.6 | 240.3 |
| 650 | 225.1 | 244.1 | 226.9 | 225.2 | 179.4 | 190.3 | 205.7 |
| 600 | 194.2 | 195.5 | 198.5 | 147.7 | 152.9 | 151.4 | 172.0 |
| 550 | 157.8 | 131.2 | 129.2 | 130.1 | 132.4 | 132.8 | 141.1 |
| 500 | 131.1 | 121.9 | 113.8 | 109.9 | 111.2 | 112.8 | 134.2 |
| 450 | 119.3 | 108.6 | 102.0 | 112.8 | 143.0 | 155.8 | 163.7 |
| 400 | 132.1 | 144.4 | 127.7 | 170.7 | 335.4 | 360.4 | 335.9 |
| 350 | | | | | | | |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -87.61 | -87.42 | -87.24 | -86.78 | -86.60 | -86.42 | -86.23 |
| LAT | 7.79 | 5.82 | 3.85 | -1.03 | -2.99 | -4.96 | -6.93 |
| QUAL | 33 | 33 | 32 | 22 | 22 | 22 | 22 |

PASS 3799 AT QUITOE, 63 7 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 155131 | 155338 | 155413 | 155431 | 155506 | 155523 | 155558 | 155633 |
| 1000 | 0.303 | 0.282 | 0.277 | 0.264 | 0.247 | 0.246 | 0.214 | 0.199 |
| 950 | 0.335 | 0.317 | 0.309 | 0.294 | 0.267 | 0.269 | 0.232 | 0.215 |
| 900 | 0.377 | 0.358 | 0.349 | 0.332 | 0.297 | 0.295 | 0.255 | 0.232 |
| 850 | 0.430 | 0.409 | 0.394 | 0.377 | 0.336 | 0.326 | 0.285 | 0.255 |
| 800 | 0.491 | 0.469 | 0.449 | 0.431 | 0.385 | 0.363 | 0.322 | 0.282 |
| 750 | 0.578 | 0.538 | 0.513 | 0.497 | 0.440 | 0.405 | 0.364 | 0.314 |
| 700 | 0.695 | 0.653 | 0.610 | 0.573 | 0.506 | 0.478 | 0.412 | 0.354 |
| 650 | 0.864 | 0.803 | 0.748 | 0.711 | 0.619 | 0.569 | 0.481 | 0.399 |
| 600 | 1.095 | 1.055 | 0.955 | 0.907 | 0.767 | 0.713 | 0.588 | 0.450 |
| 550 | 1.512 | 1.473 | 1.322 | 1.228 | 0.990 | 0.908 | 0.742 | 0.581 |
| 500 | 2.148 | 2.223 | 2.034 | 1.778 | 1.364 | 1.353 | 1.034 | 0.768 |
| 450 | 3.012 | 3.401 | 3.380 | 2.987 | 2.191 | 2.246 | 1.678 | 1.133 |
| 400 | 3.948 | 4.835 | 5.168 | 4.797 | 3.932 | | 3.143 | 1.995 |
| 350 | 4.594 | 6.192 | 6.913 | 6.835 | 6.397 | | 5.668 | 3.866 |
| 300 | | | | 8.910 | 9.245 | | 9.087 | 7.204 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 448.8 | 408.5 | 461.8 | 446.9 | 573.1 | 555.2 | 550.1 | 611.8 |
| 900 | 417.5 | 392.9 | 417.8 | 406.7 | 464.0 | 503.4 | 491.8 | 571.4 |
| 850 | 382.5 | 379.4 | 390.6 | 382.5 | 426.9 | 462.4 | 457.2 | 527.4 |
| 800 | 332.2 | 345.2 | 363.1 | 354.7 | 389.8 | 424.1 | 422.7 | 483.4 |
| 750 | 295.5 | 301.9 | 335.5 | 323.3 | 343.5 | 385.8 | 386.0 | 440.7 |
| 700 | 261.5 | 263.3 | 278.1 | 291.8 | 298.2 | 325.3 | 349.0 | 399.9 |
| 650 | 225.6 | 224.8 | 225.2 | 248.4 | 263.5 | 264.2 | 304.0 | 359.1 |
| 600 | 188.7 | 185.9 | 187.5 | 202.0 | 228.9 | 218.8 | 248.7 | 318.3 |
| 550 | 159.3 | 146.5 | 139.0 | 159.9 | 188.9 | 177.2 | 193.7 | 237.6 |
| 500 | 148.4 | 119.8 | 109.6 | 118.3 | 139.5 | 120.6 | 139.3 | 158.6 |
| 450 | 169.4 | 128.7 | 104.8 | 99.5 | 94.7 | 89.6 | 90.7 | 117.5 |
| 400 | 257.2 | 177.4 | 144.3 | 123.2 | 90.6 | | 81.9 | 80.3 |
| 350 | 478.9 | 269.0 | 224.2 | 166.7 | 121.9 | | 91.2 | 75.8 |
| 300 | | | | 211.8 | 161.3 | | 135.2 | 95.2 |
| LONG | -86.04 | -85.32 | -85.11 | -85.00 | -84.78 | -84.66 | -84.42 | -84.17 |
| LAT | -8.89 | -16.03 | -17.99 | -19.00 | -20.96 | -21.91 | -23.87 | -25.82 |
| QUAL | 22 | 23 | 13 | 13 | 13 | 13 | 23 | 23 |

PASS 3799 AT QUITOE, 63 7 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 155726 | 155801 |
| 1000 | 0.162 | 0.193 |
| 950 | 0.176 | 0.207 |
| 900 | 0.193 | 0.222 |
| 850 | 0.213 | 0.237 |
| 800 | 0.237 | 0.256 |
| 750 | 0.263 | 0.278 |
| 700 | 0.292 | 0.302 |
| 650 | 0.326 | 0.348 |
| 600 | 0.377 | 0.418 |
| 550 | 0.444 | 0.513 |
| 500 | 0.568 | 0.665 |
| 450 | 0.944 | 0.859 |
| 400 | 1.415 | 1.299 |
| 350 | 2.330 | 2.303 |
| 300 | 4.229 | 4.378 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 545.2 | 741.7 |
| 900 | 524.9 | 708.4 |
| 850 | 505.1 | 659.4 |
| 800 | 489.2 | 599.9 |
| 750 | 481.1 | 540.4 |
| 700 | 465.0 | 480.9 |
| 650 | 381.0 | 399.5 |
| 600 | 320.5 | 304.2 |
| 550 | 262.0 | 226.4 |
| 500 | 192.3 | 197.5 |
| 450 | 106.9 | 168.5 |
| 400 | 108.5 | 124.8 |
| 350 | 89.9 | 87.2 |
| 300 | 82.0 | 68.0 |
| LONG | -83.76 | -83.48 |
| LAT | -28.78 | -30.74 |
| QUAL | 23 | 23 |

PASS 3799 AT AGASTA, 63 7 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 155321 | 155356 | 155431 | 155506 | 155541 | 155819 | 160021 |
| 1000 | 0.284 | 0.281 | 0.272 | 0.268 | 0.252 | 0.161 | 0.102 |
| 950 | 0.315 | 0.318 | 0.305 | 0.296 | 0.269 | 0.176 | 0.108 |
| 900 | 0.353 | 0.358 | 0.344 | 0.316 | 0.291 | 0.182 | 0.115 |
| 850 | 0.398 | 0.405 | 0.390 | 0.349 | 0.319 | 0.196 | 0.124 |
| 800 | 0.450 | 0.462 | 0.444 | 0.391 | 0.354 | 0.212 | 0.136 |
| 750 | 0.520 | 0.528 | 0.507 | 0.454 | 0.398 | 0.232 | 0.152 |
| 700 | 0.640 | 0.620 | 0.591 | 0.533 | 0.458 | 0.269 | 0.171 |
| 650 | 0.793 | 0.789 | 0.751 | 0.640 | 0.528 | 0.314 | 0.195 |
| 600 | 1.034 | 1.004 | 0.955 | 0.798 | 0.654 | 0.370 | 0.225 |
| 550 | 1.402 | 1.408 | 1.308 | 1.071 | 0.864 | 0.449 | 0.260 |
| 500 | 2.086 | 2.061 | 1.911 | 1.580 | 1.316 | 0.545 | 0.324 |
| 450 | 3.127 | 3.285 | 3.126 | 2.514 | 2.182 | 0.741 | 0.454 |
| 400 | 4.294 | 4.840 | 5.069 | 4.335 | 3.656 | 1.127 | 0.638 |
| 350 | | 6.409 | 7.170 | 6.806 | 6.011 | 1.693 | 0.883 |
| 300 | | 7.809 | 9.239 | 9.588 | 8.812 | 3.074 | 1.379 |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 446.3 | 419.4 | 428.9 | 589.8 | 685.9 | 738.2 | 796.4 |
| 900 | 425.3 | 404.1 | 406.6 | 530.3 | 601.8 | 674.1 | 693.5 |
| 850 | 388.5 | 386.0 | 381.7 | 473.2 | 503.9 | 613.7 | 592.8 |
| 800 | 351.0 | 353.2 | 352.6 | 408.3 | 438.3 | 553.4 | 538.8 |
| 750 | 312.1 | 320.4 | 323.5 | 325.8 | 399.8 | 491.7 | 484.8 |
| 700 | 270.1 | 283.5 | 291.0 | 290.8 | 361.3 | 424.2 | 430.8 |
| 650 | 228.1 | 236.6 | 245.1 | 250.5 | 306.5 | 356.6 | 381.2 |
| 600 | 189.9 | 189.6 | 199.2 | 203.9 | 212.5 | 292.9 | 335.2 |
| 550 | 155.0 | 153.9 | 157.4 | 153.6 | 153.2 | 255.2 | 289.1 |
| 500 | 124.7 | 121.8 | 120.3 | 118.9 | 116.4 | 217.5 | 234.3 |
| 450 | 139.8 | 117.0 | 101.3 | 100.8 | 95.8 | 169.2 | 166.8 |
| 400 | 187.7 | 154.2 | 122.0 | 98.2 | 97.9 | 119.5 | 143.9 |
| 350 | | 211.4 | 171.6 | 139.1 | 116.1 | 107.5 | 136.2 |
| 300 | | 326.8 | 225.4 | 168.6 | 136.6 | 80.9 | 105.4 |
| LONG | -85.42 | -85.21 | -85.00 | -84.78 | -84.54 | -83.32 | -82.11 |
| LAT | -15.08 | -17.04 | -19.00 | -20.96 | -22.92 | -31.74 | -38.52 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 3799 AT SOLANT, 63 7 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 155854 | 155929 | 160021 | 160056 | 160149 | 160350 | 160425 |
| 1000 | 0.117 | 0.104 | 0.094 | 0.084 | 0.077 | 0.057 | 0.050 |
| 950 | 0.126 | 0.112 | 0.100 | 0.090 | 0.082 | 0.062 | 0.054 |
| 900 | 0.136 | 0.121 | 0.105 | 0.095 | 0.087 | 0.067 | 0.059 |
| 850 | 0.148 | 0.131 | 0.110 | 0.102 | 0.093 | 0.074 | 0.066 |
| 800 | 0.161 | 0.142 | 0.121 | 0.111 | 0.101 | 0.081 | 0.074 |
| 750 | 0.178 | 0.154 | 0.145 | 0.121 | 0.110 | 0.091 | 0.082 |
| 700 | 0.198 | 0.170 | 0.162 | 0.132 | 0.121 | 0.104 | 0.091 |
| 650 | 0.223 | 0.192 | 0.176 | 0.149 | 0.135 | 0.119 | 0.104 |
| 600 | 0.257 | 0.219 | 0.204 | 0.170 | 0.155 | 0.140 | 0.122 |
| 550 | 0.299 | 0.252 | 0.243 | 0.207 | 0.179 | 0.169 | 0.148 |
| 500 | 0.375 | 0.323 | 0.305 | 0.264 | 0.218 | 0.216 | 0.195 |
| 450 | 0.515 | 0.420 | 0.394 | 0.358 | 0.281 | 0.295 | 0.271 |
| 400 | 0.756 | 0.639 | 0.556 | 0.504 | 0.377 | 0.448 | 0.391 |
| 350 | 1.201 | 1.034 | 0.832 | 0.731 | 0.544 | 0.679 | 0.589 |
| 300 | 2.151 | 1.783 | 1.269 | 1.141 | 0.901 | 1.130 | 0.985 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 648.7 | 656.3 | 1062.9 | 785.0 | 864.7 | 570.8 | 615.7 |
| 900 | 613.5 | 649.9 | 921.1 | 746.9 | 762.9 | 547.9 | 534.2 |
| 850 | 601.4 | 624.3 | 779.2 | 684.6 | 672.6 | 518.1 | 495.7 |
| 800 | 549.2 | 577.8 | 622.1 | 609.6 | 590.7 | 488.3 | 482.2 |
| 750 | 499.7 | 520.3 | 452.5 | 540.9 | 532.8 | 430.3 | 474.4 |
| 700 | 437.9 | 464.4 | 432.1 | 476.6 | 478.5 | 368.5 | 404.9 |
| 650 | 382.6 | 411.0 | 434.5 | 403.3 | 423.5 | 324.8 | 346.3 |
| 600 | 335.0 | 357.6 | 352.2 | 329.7 | 367.3 | 285.8 | 295.2 |
| 550 | 287.4 | 304.2 | 279.8 | 263.4 | 311.1 | 247.8 | 240.8 |
| 500 | 230.2 | 236.2 | 228.0 | 202.5 | 257.2 | 198.2 | 173.7 |
| 450 | 159.0 | 166.5 | 185.6 | 164.8 | 206.0 | 127.7 | 147.7 |
| 400 | 124.5 | 111.6 | 126.6 | 137.1 | 159.8 | 121.9 | 131.2 |
| 350 | 95.7 | 100.9 | 126.4 | 125.6 | 122.0 | 112.9 | 113.2 |
| 300 | 80.0 | 84.3 | 103.6 | 98.7 | 88.3 | 78.8 | 86.2 |
| LONG | -83.00 | -82.66 | -82.11 | -81.72 | -81.03 | -79.11 | -78.42 |
| LAT | -33.89 | -35.63 | -38.52 | -40.46 | -43.39 | -50.06 | -51.97 |
| QUAL | 23 | 23 | 23 | 33 | 23 | 23 | 33 |

PASS 3799 AT SULANT, 63 7 4

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 160518 | 160610 | 160645 | 160737 |
| 1000 | 0.041 | 0.034 | 0.036 | 0.025 |
| 950 | 0.047 | 0.039 | 0.041 | 0.029 |
| 900 | 0.053 | 0.045 | 0.046 | 0.034 |
| 850 | 0.060 | 0.052 | 0.053 | 0.041 |
| 800 | 0.068 | 0.060 | 0.062 | 0.051 |
| 750 | 0.078 | 0.070 | 0.073 | 0.063 |
| 700 | 0.091 | 0.083 | 0.086 | 0.077 |
| 650 | 0.106 | 0.097 | 0.102 | 0.092 |
| 600 | 0.126 | 0.114 | 0.123 | 0.110 |
| 550 | 0.154 | 0.145 | 0.154 | 0.139 |
| 500 | 0.192 | 0.184 | 0.197 | 0.188 |
| 450 | 0.253 | 0.243 | 0.258 | 0.250 |
| 400 | 0.351 | 0.344 | 0.356 | 0.359 |
| 350 | 0.489 | 0.484 | 0.505 | 0.535 |
| 300 | 0.749 | 0.810 | 0.900 | 0.922 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 390.5 | 361.8 | 405.4 | 336.5 |
| 900 | 390.5 | 352.3 | 369.6 | 293.3 |
| 850 | 377.4 | 340.7 | 345.2 | 274.6 |
| 800 | 364.4 | 329.0 | 322.1 | 264.5 |
| 750 | 347.9 | 315.1 | 311.9 | 254.4 |
| 700 | 327.6 | 299.2 | 301.8 | 247.4 |
| 650 | 307.3 | 283.3 | 291.7 | 240.7 |
| 600 | 277.9 | 268.4 | 246.2 | 234.0 |
| 550 | 243.0 | 234.7 | 216.0 | 217.4 |
| 500 | 213.8 | 203.0 | 197.7 | 189.8 |
| 450 | 194.2 | 178.3 | 173.1 | 162.3 |
| 400 | 174.5 | 158.7 | 157.1 | 139.5 |
| 350 | 126.0 | 130.1 | 118.1 | 113.8 |
| 300 | 96.9 | 85.8 | 92.2 | 81.7 |
| LONG | -77.25 | -75.89 | -74.82 | -72.94 |
| LAT | -54.66 | -57.08 | -59.55 | -62.33 |
| QUAL | 23 | 23 | 22 | 33 |

PASS 3805 AT QUITO , 63 7 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 31417 | 31452 | 31527 | 31602 | 31637 | 31712 | 31747 |
| 1000 | 0.115 | 0.130 | 0.129 | 0.143 | 0.162 | 0.152 | 0.123 |
| 950 | 0.125 | 0.142 | 0.139 | 0.155 | 0.175 | 0.162 | 0.132 |
| 900 | 0.137 | 0.156 | 0.153 | 0.168 | 0.189 | 0.176 | 0.140 |
| 850 | 0.155 | 0.173 | 0.172 | 0.186 | 0.207 | 0.193 | 0.151 |
| 800 | 0.177 | 0.193 | 0.197 | 0.209 | 0.229 | 0.214 | 0.166 |
| 750 | 0.202 | 0.233 | 0.229 | 0.236 | 0.258 | 0.240 | 0.190 |
| 700 | 0.242 | 0.288 | 0.269 | 0.281 | 0.291 | 0.294 | 0.221 |
| 650 | 0.317 | 0.360 | 0.316 | 0.360 | 0.371 | 0.379 | 0.284 |
| 600 | 0.415 | 0.466 | 0.390 | 0.481 | 0.497 | 0.504 | 0.405 |
| 550 | 0.562 | 0.598 | 0.619 | 0.675 | 0.687 | 0.672 | 0.618 |
| 500 | 0.809 | 0.926 | 0.960 | 0.995 | 1.129 | 1.077 | 0.971 |
| 450 | 1.252 | 1.421 | 1.513 | 1.705 | 1.868 | 1.702 | 1.580 |
| 400 | 1.972 | 2.187 | 2.423 | 2.792 | 3.054 | 2.720 | 2.502 |
| 350 | 3.044 | 3.355 | 3.723 | 4.396 | | 4.157 | 3.886 |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 566.0 | 575.6 | 609.7 | 616.5 | 651.7 | 706.5 | 859.8 |
| 900 | 485.0 | 500.5 | 475.1 | 555.6 | 596.7 | 556.1 | 721.8 |
| 850 | 422.7 | 426.8 | 404.7 | 473.4 | 501.8 | 483.9 | 603.1 |
| 800 | 361.0 | 351.7 | 345.9 | 404.3 | 442.3 | 424.2 | 455.5 |
| 750 | 312.3 | 307.2 | 316.5 | 341.0 | 386.4 | 364.4 | 341.4 |
| 700 | 269.2 | 265.4 | 287.1 | 278.4 | 330.5 | 288.0 | 271.4 |
| 650 | 233.5 | 223.8 | 257.8 | 216.3 | 224.8 | 204.7 | 180.8 |
| 600 | 197.8 | 192.6 | 218.0 | 169.6 | 159.2 | 168.8 | 128.3 |
| 550 | 160.1 | 161.4 | 118.2 | 146.3 | 133.2 | 144.5 | 115.4 |
| 500 | 125.0 | 130.2 | 112.5 | 118.4 | 110.4 | 114.4 | 106.8 |
| 450 | 113.9 | 117.8 | 108.5 | 97.6 | 99.9 | 108.9 | 107.1 |
| 400 | 110.8 | 116.8 | 112.1 | 104.2 | 105.9 | 110.8 | 107.4 |
| 350 | 129.3 | 130.1 | 125.9 | 143.1 | | 136.5 | 136.2 |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -79.45 | -79.27 | -79.09 | -78.90 | -78.71 | -78.52 | -78.33 |
| LAT | -1.70 | 0.28 | 2.26 | 4.24 | 6.22 | 8.20 | 10.19 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 3806 AT RESLUT, 63 7 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 34030 | 34046 | 34105 | 34122 | 34139 | 34156 | 34214 | 34233 |
| 1000 | 0.166 | 0.176 | 0.221 | 0.199 | 0.198 | 0.206 | 0.229 | 0.239 |
| 950 | 0.191 | 0.198 | 0.239 | 0.221 | 0.216 | 0.221 | 0.245 | 0.260 |
| 900 | 0.217 | 0.221 | 0.263 | 0.247 | 0.238 | 0.234 | 0.266 | 0.291 |
| 850 | 0.248 | 0.246 | 0.295 | 0.280 | 0.264 | 0.254 | 0.293 | 0.333 |
| 800 | 0.287 | 0.279 | 0.337 | 0.320 | 0.295 | 0.280 | 0.322 | 0.377 |
| 750 | 0.338 | 0.322 | 0.392 | 0.374 | 0.336 | 0.314 | 0.352 | 0.434 |
| 700 | 0.403 | 0.379 | 0.462 | 0.442 | 0.386 | 0.358 | 0.388 | 0.509 |
| 650 | 0.487 | 0.451 | 0.556 | 0.530 | 0.452 | 0.411 | 0.431 | 0.609 |
| 600 | 0.606 | 0.541 | 0.678 | 0.642 | 0.542 | 0.479 | 0.493 | 0.738 |
| 550 | 0.758 | 0.671 | 0.838 | 0.792 | 0.662 | 0.563 | 0.590 | 0.928 |
| 500 | 0.963 | 0.833 | 1.056 | 0.990 | 0.820 | 0.662 | 0.721 | 1.205 |
| 450 | 1.222 | 1.026 | 1.377 | 1.279 | 1.040 | 0.830 | 0.899 | 1.606 |
| 400 | 1.466 | 1.255 | 1.753 | 1.651 | 1.347 | 1.058 | 1.136 | 2.157 |
| 350 | | | | | 1.784 | 1.403 | 1.469 | 2.797 |
| 300 | | | | | 2.369 | 1.903 | 1.918 | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 372.2 | 436.1 | 574.7 | 452.5 | 531.8 | 782.3 | 652.4 | 510.8 |
| 900 | 375.1 | 469.0 | 465.9 | 423.4 | 495.2 | 666.4 | 577.6 | 445.5 |
| 850 | 354.6 | 423.5 | 418.9 | 385.6 | 460.2 | 591.2 | 536.9 | 396.6 |
| 800 | 327.5 | 379.6 | 361.5 | 346.6 | 414.1 | 521.8 | 535.5 | 373.4 |
| 750 | 299.8 | 336.7 | 313.3 | 312.8 | 368.2 | 452.5 | 530.2 | 331.5 |
| 700 | 271.5 | 296.8 | 285.7 | 286.0 | 337.2 | 400.5 | 507.9 | 294.2 |
| 650 | 244.4 | 274.7 | 265.2 | 267.1 | 294.2 | 352.0 | 408.8 | 271.6 |
| 600 | 234.3 | 257.1 | 251.1 | 252.4 | 267.3 | 318.8 | 317.8 | 246.6 |
| 550 | 224.2 | 251.4 | 239.2 | 233.5 | 249.0 | 294.2 | 287.3 | 213.4 |
| 500 | 211.7 | 245.8 | 225.7 | 212.4 | 229.4 | 269.6 | 256.9 | 187.8 |
| 450 | 247.6 | 247.3 | 200.0 | 202.4 | 207.5 | 236.7 | 231.6 | 173.5 |
| 400 | 322.7 | 251.4 | 216.6 | 236.3 | 189.8 | 201.7 | 211.2 | 182.6 |
| 350 | | | | | 178.9 | 176.1 | 198.2 | 222.2 |
| 300 | | | | | 205.1 | 161.2 | 236.0 | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -7.92 | -2.80 | 3.33 | 8.93 | 14.52 | 20.12 | 25.25 | 30.42 |
| LAT | 80.14 | 80.33 | 80.46 | 80.33 | 80.21 | 80.08 | 79.71 | 79.24 |
| QUAL | 22 | 31 | 32 | 31 | 33 | 33 | 32 | 33 |

PASS 3806 AT RESLUT, 63 7 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 34251 | 34307 | 34326 | 34343 | 34400 |
| 1000 | 0.245 | 0.221 | 0.236 | 0.248 | 0.209 |
| 950 | 0.275 | 0.247 | 0.270 | 0.283 | 0.241 |
| 900 | 0.311 | 0.280 | 0.312 | 0.327 | 0.277 |
| 850 | 0.355 | 0.322 | 0.361 | 0.382 | 0.319 |
| 800 | 0.406 | 0.373 | 0.419 | 0.448 | 0.370 |
| 750 | 0.471 | 0.435 | 0.494 | 0.530 | 0.436 |
| 700 | 0.567 | 0.512 | 0.592 | 0.636 | 0.522 |
| 650 | 0.701 | 0.612 | 0.717 | 0.787 | 0.645 |
| 600 | 0.886 | 0.739 | 0.873 | 0.985 | 0.806 |
| 550 | 1.134 | 0.912 | 1.090 | 1.250 | 1.018 |
| 500 | 1.489 | 1.146 | 1.368 | 1.587 | 1.298 |
| 450 | 1.947 | 1.460 | 1.753 | | 1.635 |
| 400 | | 1.843 | 2.245 | | 2.036 |
| 350 | | 2.254 | | | |
| 300 | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | |
|---|---|---|---|---|---|
| 950 | 417.3 | 415.9 | 354.4 | 357.1 | 352.3 |
| 900 | 395.3 | 382.6 | 348.9 | 335.3 | 350.8 |
| 850 | 387.4 | 352.6 | 339.6 | 326.6 | 346.7 |
| 800 | 355.8 | 334.3 | 318.5 | 302.7 | 319.3 |
| 750 | 294.2 | 310.9 | 284.8 | 278.6 | 289.1 |
| 700 | 261.6 | 290.2 | 265.3 | 257.0 | 258.2 |
| 650 | 237.4 | 274.9 | 256.6 | 238.5 | 241.1 |
| 600 | 216.3 | 257.6 | 246.8 | 221.5 | 224.1 |
| 550 | 197.8 | 234.3 | 229.8 | 213.3 | 210.4 |
| 500 | 190.7 | 218.7 | 214.1 | 225.3 | 214.7 |
| 450 | 207.7 | 213.8 | 201.7 | | 223.9 |
| 400 | | 229.4 | 244.6 | | 269.8 |
| 350 | | 288.3 | | | |
| 300 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LONG | 35.32 | 39.15 | 42.90 | 46.26 | 49.62 |
| LAT | 78.80 | 78.33 | 77.64 | 77.02 | 76.41 |
| QUAL | 33 | 32 | 31 | 31 | 31 |

PASS 3812 AT RESLUT, 63 7 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 141656 | 141714 | 141730 | 141757 | 141806 | 141825 | 141841 | 141858 |
| 1000 | 0.121 | 0.098 | 0.082 | 0.068 | 0.089 | 0.161 | 0.128 | 0.198 |
| 950 | 0.139 | 0.115 | 0.096 | 0.081 | 0.109 | 0.184 | 0.145 | 0.221 |
| 900 | 0.160 | 0.134 | 0.113 | 0.096 | 0.130 | 0.211 | 0.165 | 0.247 |
| 850 | 0.183 | 0.157 | 0.133 | 0.114 | 0.154 | 0.244 | 0.188 | 0.280 |
| 800 | 0.212 | 0.182 | 0.156 | 0.135 | 0.181 | 0.287 | 0.217 | 0.319 |
| 750 | 0.252 | 0.214 | 0.183 | 0.160 | 0.214 | 0.339 | 0.255 | 0.367 |
| 700 | 0.306 | 0.252 | 0.213 | 0.192 | 0.257 | 0.404 | 0.302 | 0.429 |
| 650 | 0.372 | 0.309 | 0.260 | 0.229 | 0.308 | 0.503 | 0.357 | 0.519 |
| 600 | 0.468 | 0.382 | 0.321 | 0.285 | 0.385 | 0.630 | 0.456 | 0.633 |
| 550 | 0.594 | 0.480 | 0.398 | 0.354 | 0.488 | 0.812 | 0.601 | 0.779 |
| 500 | 0.755 | 0.601 | 0.505 | 0.451 | 0.625 | 1.061 | 0.780 | 0.988 |
| 450 | 0.963 | 0.768 | 0.635 | 0.585 | 0.808 | 1.401 | 1.005 | 1.287 |
| 400 | 1.240 | 0.983 | 0.823 | 0.756 | 1.050 | 1.854 | 1.319 | 1.695 |
| 350 | 1.540 | 1.268 | 1.071 | 0.987 | 1.405 | 2.419 | | 2.172 |
| 300 | | 1.616 | 1.399 | 1.306 | 1.776 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 359.6 | | 303.4 | 282.7 | | 369.5 | 390.5 | 438.1 |
| 900 | 357.7 | 321.3 | 305.8 | 286.0 | 287.9 | 346.4 | 376.9 | 415.2 |
| 850 | 340.8 | 319.4 | 309.6 | 289.2 | 294.6 | 328.9 | 350.1 | 396.8 |
| 800 | 307.4 | 317.0 | 306.9 | 287.4 | 291.1 | 313.6 | 323.3 | 378.4 |
| 750 | 283.5 | 296.6 | 295.1 | 280.6 | 284.0 | 286.5 | 301.5 | 331.2 |
| 700 | 264.3 | 275.9 | 283.4 | 268.5 | 269.6 | 252.0 | 279.8 | 290.1 |
| 650 | 245.2 | 253.6 | 264.5 | 256.3 | 255.1 | 235.4 | 258.0 | 274.1 |
| 600 | 231.4 | 231.2 | 244.4 | 239.4 | 226.0 | 218.8 | 233.0 | 258.1 |
| 550 | 219.3 | 223.0 | 227.1 | 222.5 | 207.7 | 199.7 | 206.5 | 237.2 |
| 500 | 209.0 | 215.6 | 218.7 | 210.5 | 202.4 | 184.9 | 194.2 | 200.6 |
| 450 | 205.8 | 208.5 | 210.2 | 202.1 | 193.5 | 179.8 | 190.8 | 190.1 |
| 400 | 222.5 | 202.6 | 197.5 | 193.4 | 184.6 | 182.5 | 186.2 | 192.4 |
| 350 | 258.4 | 204.4 | 190.0 | 184.1 | 184.6 | 368.4 | | 224.5 |
| 300 | | 254.9 | 191.5 | 184.6 | 729.1 | | | |
| LONG | -111.93 | -109.05 | -106.71 | -102.76 | -101.70 | -99.73 | -98.07 | -96.31 |
| LAT | 76.92 | 76.19 | 75.51 | 74.37 | 73.96 | 73.07 | 72.32 | 71.52 |
| QUAL | 32 | 32 | 31 | 33 | 31 | 31 | 33 | 31 |

PASS 3812 AT RESLUT, 63 7 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 141917 | 141934 | 141951 | 142009 | 142027 | 142044 | 142101 | 142120 |
| 1000 | 0.191 | 0.181 | 0.182 | 0.184 | 0.225 | 0.221 | 0.209 | 0.253 |
| 950 | 0.213 | 0.204 | 0.204 | 0.208 | 0.248 | 0.241 | 0.228 | 0.281 |
| 900 | 0.241 | 0.228 | 0.232 | 0.234 | 0.276 | 0.267 | 0.253 | 0.311 |
| 850 | 0.275 | 0.255 | 0.267 | 0.265 | 0.315 | 0.306 | 0.285 | 0.347 |
| 800 | 0.320 | 0.295 | 0.308 | 0.305 | 0.364 | 0.354 | 0.324 | 0.389 |
| 750 | 0.376 | 0.344 | 0.357 | 0.351 | 0.429 | 0.410 | 0.374 | 0.447 |
| 700 | 0.458 | 0.402 | 0.420 | 0.410 | 0.517 | 0.480 | 0.440 | 0.520 |
| 650 | 0.579 | 0.499 | 0.510 | 0.495 | 0.623 | 0.582 | 0.527 | 0.611 |
| 600 | 0.734 | 0.619 | 0.621 | 0.598 | 0.768 | 0.713 | 0.632 | 0.739 |
| 550 | 0.949 | 0.775 | 0.782 | 0.748 | 0.976 | 0.889 | 0.789 | 0.933 |
| 500 | 1.243 | 0.985 | 1.009 | 0.942 | 1.278 | 1.126 | 0.992 | 1.234 |
| 450 | 1.634 | 1.273 | 1.332 | 1.221 | 1.667 | 1.441 | 1.273 | 1.667 |
| 400 | 2.155 | 1.643 | 1.785 | 1.586 | 2.206 | 1.852 | 1.635 | 2.179 |
| 350 | | 2.137 | 2.416 | 2.058 | | 2.402 | 2.134 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 418.8 | 433.7 | 397.6 | 415.3 | 469.6 | 502.0 | 501.2 | 485.4 |
| 900 | 385.7 | 411.3 | 374.1 | 391.9 | 410.6 | 427.5 | 455.7 | 466.5 |
| 850 | 355.3 | 376.6 | 357.0 | 370.4 | 373.1 | 391.7 | 415.3 | 430.0 |
| 800 | 319.0 | 347.1 | 335.6 | 351.0 | 335.6 | 355.9 | 372.9 | 388.1 |
| 750 | 280.1 | 317.6 | 312.4 | 331.7 | 305.2 | 321.3 | 329.0 | 359.6 |
| 700 | 251.6 | 288.1 | 289.7 | 309.9 | 283.7 | 290.6 | 300.4 | 332.6 |
| 650 | 231.3 | 264.9 | 267.8 | 280.4 | 262.1 | 266.5 | 260.3 | 297.9 |
| 600 | 211.0 | 241.8 | 245.9 | 251.0 | 233.9 | 243.3 | 260.2 | 237.2 |
| 550 | 190.9 | 220.0 | 217.0 | 228.3 | 197.9 | 223.1 | 234.5 | 200.6 |
| 500 | 186.4 | 202.3 | 189.6 | 207.3 | 193.3 | 212.0 | 212.5 | 179.3 |
| 450 | 182.1 | 200.5 | 179.8 | 199.5 | 184.7 | 203.8 | 205.8 | 171.0 |
| 400 | 179.3 | 193.3 | 167.4 | 193.6 | 177.2 | 196.9 | 194.0 | 271.2 |
| 350 | | 203.5 | 171.9 | 208.7 | | 203.8 | 191.8 | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -94.81 | -93.53 | -92.24 | -91.05 | -90.03 | -89.06 | -88.11 | -87.27 |
| LAT | 70.59 | 69.75 | 68.91 | 68.00 | 67.07 | 66.20 | 65.33 | 64.33 |
| QUAL | 33 | 33 | 33 | 31 | 33 | 33 | 33 | 31 |

PASS 3812 AT RESLUT, 63 7 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 142136 | 142154 | 142211 | 142229 | 142246 | 142303 | 142320 | 142338 |
| 1000 | 0.226 | 0.218 | 0.149 | 0.169 | 0.133 | 0.129 | 0.112 | 0.115 |
| 950 | 0.251 | 0.241 | 0.171 | 0.189 | 0.154 | 0.145 | 0.128 | 0.134 |
| 900 | 0.283 | 0.270 | 0.196 | 0.214 | 0.176 | 0.166 | 0.147 | 0.154 |
| 850 | 0.322 | 0.306 | 0.226 | 0.248 | 0.201 | 0.192 | 0.171 | 0.178 |
| 800 | 0.369 | 0.352 | 0.263 | 0.290 | 0.231 | 0.222 | 0.199 | 0.206 |
| 750 | 0.424 | 0.408 | 0.309 | 0.343 | 0.268 | 0.259 | 0.233 | 0.243 |
| 700 | 0.489 | 0.474 | 0.362 | 0.406 | 0.313 | 0.301 | 0.276 | 0.290 |
| 650 | 0.563 | 0.563 | 0.435 | 0.499 | 0.369 | 0.358 | 0.331 | 0.345 |
| 600 | 0.664 | 0.695 | 0.534 | 0.620 | 0.455 | 0.438 | 0.409 | 0.425 |
| 550 | 0.829 | 0.863 | 0.655 | 0.776 | 0.570 | 0.547 | 0.513 | 0.524 |
| 500 | 1.043 | 1.079 | 0.825 | 0.984 | 0.730 | 0.689 | 0.660 | 0.647 |
| 450 | 1.320 | 1.363 | 1.040 | 1.276 | 0.941 | 0.885 | 0.849 | 0.833 |
| 400 | 1.682 | 1.742 | 1.316 | 1.650 | 1.219 | 1.145 | 1.091 | 1.085 |
| 350 | 2.096 | 2.169 | 1.672 | 2.065 | 1.556 | 1.477 | 1.407 | 1.419 |
| 300 | | | 1.995 | 2.399 | 1.923 | 1.854 | 1.810 | 1.818 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 429.2 | 460.4 | 366.9 | 412.6 | 356.4 | 385.3 | 362.6 | 341.7 |
| 900 | 406.1 | 426.1 | 355.1 | 369.6 | 365.1 | 361.5 | 348.2 | 344.7 |
| 850 | 383.4 | 389.0 | 333.1 | 345.5 | 359.4 | 347.9 | 334.1 | 334.0 |
| 800 | 360.9 | 349.8 | 314.5 | 324.9 | 347.7 | 334.3 | 319.5 | 316.3 |
| 750 | 343.2 | 326.5 | 301.9 | 296.9 | 332.4 | 318.5 | 304.7 | 299.2 |
| 700 | 327.4 | 305.4 | 289.2 | 260.6 | 303.6 | 302.8 | 283.1 | 282.3 |
| 650 | 311.6 | 278.9 | 273.4 | 249.0 | 267.5 | 277.7 | 257.3 | 265.5 |
| 600 | 286.8 | 242.9 | 256.5 | 238.2 | 243.9 | 244.2 | 236.0 | 252.4 |
| 550 | 243.6 | 228.0 | 237.8 | 222.6 | 221.7 | 225.1 | 216.9 | 239.3 |
| 500 | 218.5 | 219.0 | 223.5 | 202.3 | 207.9 | 211.3 | 205.1 | 224.3 |
| 450 | 214.5 | 212.4 | 215.4 | 197.7 | 198.3 | 200.6 | 198.2 | 201.7 |
| 400 | 218.1 | 216.0 | 215.0 | 207.5 | 202.1 | 198.1 | 197.2 | 193.7 |
| 350 | 290.6 | 363.8 | 221.5 | 272.8 | 222.5 | 212.3 | 199.8 | 197.0 |
| 300 | | | 594.2 | 484.7 | 266.0 | 259.4 | 249.9 | 239.3 |
| LONG | -86.57 | -85.77 | -85.13 | -84.50 | -83.92 | -83.35 | -82.87 | -82.37 |
| LAT | 63.49 | 62.54 | 61.64 | 60.68 | 59.78 | 58.87 | 57.95 | 56.98 |
| QUAL | 31 | 31 | 31 | 21 | 22 | 21 | 22 | |

PASS 3812 AT RESLUT, 63 7 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 142357 | 142429 | 142432 | 142449 | 142507 | 142524 | 142541 |
| 1000 | 0.113 | 0.141 | 0.118 | 0.117 | 0.137 | 0.118 | 0.124 |
| 950 | 0.131 | 0.163 | 0.137 | 0.138 | 0.157 | 0.137 | 0.143 |
| 900 | 0.152 | 0.188 | 0.160 | 0.159 | 0.182 | 0.160 | 0.166 |
| 850 | 0.176 | 0.220 | 0.187 | 0.186 | 0.212 | 0.187 | 0.193 |
| 800 | 0.206 | 0.261 | 0.218 | 0.217 | 0.252 | 0.219 | 0.227 |
| 750 | 0.244 | 0.313 | 0.258 | 0.259 | 0.304 | 0.262 | 0.272 |
| 700 | 0.291 | 0.377 | 0.309 | 0.313 | 0.377 | 0.313 | 0.325 |
| 650 | 0.348 | 0.474 | 0.369 | 0.382 | 0.471 | 0.393 | 0.388 |
| 600 | 0.439 | 0.600 | 0.462 | 0.482 | 0.615 | 0.501 | 0.505 |
| 550 | 0.552 | 0.796 | 0.591 | 0.606 | 0.826 | 0.648 | 0.655 |
| 500 | 0.706 | 1.062 | 0.794 | 0.806 | 1.140 | 0.869 | 0.869 |
| 450 | 0.940 | 1.443 | 1.093 | 1.084 | | 1.175 | 1.169 |
| 400 | 1.295 | 1.931 | 1.545 | 1.477 | | | 1.583 |
| 350 | 1.741 | | 2.084 | 2.040 | | | |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 333.3 | 341.8 | 329.0 | 325.6 | 342.1 | 331.1 | 341.4 |
| 900 | 333.9 | 329.0 | 324.3 | 324.9 | 325.7 | 323.2 | 330.1 |
| 850 | 323.1 | 305.2 | 320.2 | 313.0 | 309.3 | 310.4 | 310.8 |
| 800 | 303.5 | 281.1 | 302.0 | 297.7 | 281.6 | 295.7 | 288.4 |
| 750 | 286.2 | 264.5 | 285.5 | 278.9 | 251.4 | 271.6 | 273.4 |
| 700 | 269.5 | 247.8 | 270.2 | 258.0 | 231.1 | 247.4 | 258.3 |
| 650 | 252.7 | 223.3 | 254.9 | 237.9 | 211.9 | 228.7 | 243.3 |
| 600 | 234.9 | 198.0 | 226.6 | 220.3 | 188.6 | 210.7 | 218.8 |
| 550 | 217.2 | 183.6 | 191.9 | 202.7 | 165.0 | 190.6 | 194.2 |
| 500 | 196.4 | 172.1 | 169.6 | 182.8 | 150.6 | 169.6 | 176.3 |
| 450 | 169.6 | 168.8 | 154.4 | 167.5 | | 167.3 | 169.1 |
| 400 | 166.6 | 212.9 | 155.6 | 160.4 | | | 167.8 |
| 350 | 171.9 | | 232.0 | 178.9 | | | |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -81.83 | -81.08 | -81.01 | -80.61 | -80.22 | -79.90 | -79.57 |
| LAT | 55.96 | 54.22 | 54.06 | 53.13 | 52.15 | 51.22 | 50.29 |
| QUAL | 13 | 11 | 11 | 11 | 13 | 13 | 13 |

PASS 3812 AT QUITOE, 63 7 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 143747 | 143822 | 143857 | 143949 | 144059 | 144134 | 144209 | 144244 |
| 1000 | 0.268 | 0.264 | 0.284 | 0.252 | 0.224 | 0.257 | 0.250 | 0.256 |
| 950 | 0.303 | 0.298 | 0.331 | 0.285 | 0.264 | 0.301 | 0.295 | 0.292 |
| 900 | 0.349 | 0.344 | 0.383 | 0.329 | 0.319 | 0.356 | 0.349 | 0.331 |
| 850 | 0.402 | 0.399 | 0.444 | 0.381 | 0.387 | 0.424 | 0.414 | 0.378 |
| 800 | 0.464 | 0.463 | 0.518 | 0.450 | 0.467 | 0.505 | 0.490 | 0.444 |
| 750 | 0.550 | 0.553 | 0.632 | 0.546 | 0.572 | 0.623 | 0.595 | 0.537 |
| 700 | 0.668 | 0.678 | 0.785 | 0.686 | 0.729 | 0.793 | 0.748 | 0.687 |
| 650 | 0.826 | 0.860 | 1.006 | 0.873 | 0.960 | 1.049 | 0.979 | 0.933 |
| 600 | 1.077 | 1.126 | 1.332 | 1.185 | 1.322 | 1.480 | 1.384 | 1.306 |
| 550 | 1.486 | 1.538 | 1.863 | 1.702 | 1.952 | 2.176 | 2.081 | 1.880 |
| 500 | 2.249 | 2.240 | 2.764 | 2.594 | 3.042 | 3.357 | 3.217 | 2.776 |
| 450 | 3.542 | 3.475 | 4.377 | 4.189 | 4.805 | 5.057 | 4.733 | 3.915 |
| 400 | 5.554 | 5.601 | | 6.598 | 6.638 | | | |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 381.2 | 383.5 | 336.5 | 379.6 | 299.5 | 307.5 | 296.5 | 376.9 |
| 900 | 362.2 | 355.5 | 336.3 | 352.9 | 283.1 | 299.8 | 295.9 | 379.5 |
| 850 | 343.1 | 330.5 | 315.4 | 319.2 | 269.9 | 285.4 | 288.6 | 340.7 |
| 800 | 323.2 | 306.4 | 283.9 | 280.6 | 260.6 | 262.9 | 278.8 | 293.7 |
| 750 | 278.1 | 271.9 | 255.2 | 238.2 | 219.4 | 228.7 | 239.5 | 237.6 |
| 700 | 245.1 | 230.6 | 227.0 | 215.9 | 196.0 | 195.8 | 203.9 | 187.2 |
| 650 | 218.0 | 202.9 | 196.8 | 191.7 | 173.0 | 164.2 | 170.3 | 159.1 |
| 600 | 178.5 | 176.7 | 167.2 | 153.1 | 145.6 | 139.4 | 135.4 | 145.6 |
| 550 | 141.8 | 151.3 | 139.3 | 131.9 | 120.2 | 123.3 | 119.1 | 133.1 |
| 500 | 112.9 | 124.8 | 119.3 | 111.3 | 108.9 | 112.8 | 116.4 | 133.8 |
| 450 | 110.7 | 109.7 | 103.8 | 103.6 | 120.2 | 151.5 | 181.2 | 185.6 |
| 400 | 114.0 | 104.2 | | 161.2 | 433.0 | | | |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -72.65 | -72.46 | -72.27 | -72.00 | -71.64 | -71.45 | -71.26 | -71.08 |
| LAT. | 9.88 | 7.91 | 5.95 | 3.03 | -0.89 | -2.87 | -4.84 | -6.80 |
| QUAL | 23 | 33 | 33 | 33 | 21 | 32 | 22 | 32 |

PASS 3812 AT QUITOE, 63 7 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 144319 | 144354 | 144557 | 144632 |
| 1000 | 0.314 | 0.258 | 0.235 | 0.232 |
| 950 | 0.347 | 0.289 | 0.265 | 0.260 |
| 900 | 0.386 | 0.322 | 0.302 | 0.294 |
| 850 | 0.434 | 0.365 | 0.350 | 0.334 |
| 800 | 0.499 | 0.424 | 0.420 | 0.399 |
| 750 | 0.594 | 0.511 | 0.512 | 0.486 |
| 700 | 0.759 | 0.651 | 0.639 | 0.610 |
| 650 | 1.012 | 0.890 | 0.834 | 0.786 |
| 600 | 1.401 | 1.258 | 1.125 | 1.062 |
| 550 | 1.981 | 1.764 | 1.568 | 1.519 |
| 500 | 2.786 | 2.425 | 2.261 | 2.257 |
| 450 | 3.649 | 3.194 | 3.284 | 3.335 |
| 400 | | 3.798 | 4.473 | 4.680 |
| 350 | | | 5.548 | 6.162 |
| 300 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | |
|---|---|---|---|---|
| 950 | 489.1 | 447.9 | 391.9 | 429.6 |
| 900 | 447.7 | 414.4 | 351.8 | 387.0 |
| 850 | 389.8 | 361.0 | 308.8 | 325.3 |
| 800 | 318.8 | 312.4 | 278.3 | 287.9 |
| 750 | 249.6 | 247.7 | 242.8 | 251.7 |
| 700 | 204.1 | 189.2 | 206.4 | 219.5 |
| 650 | 169.4 | 154.8 | 184.3 | 190.9 |
| 600 | 150.9 | 147.9 | 162.1 | 159.1 |
| 550 | 144.9 | 152.6 | 145.3 | 134.6 |
| 500 | 160.6 | 169.3 | 134.0 | 125.2 |
| 450 | 243.8 | 220.7 | 144.3 | 136.9 |
| 400 | | 467.2 | 197.9 | 162.9 |
| 350 | | | 270.2 | 211.1 |
| 300 | | | | |

| | | | | |
|---|---|---|---|---|
| LONG | -70.89 | -70.70 | -69.99 | -69.76 |
| LAT | -8.77 | -10.73 | -17.63 | -19.60 |
| QUAL | 32 | 31 | 32 | 32 |

PASS 3812 AT AGASTA, 63 7 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 144615 | 144656 | 144741 | 144816 | 144943 | 145018 | 145111 |
| 1000 | 0.258 | 0.256 | 0.254 | 0.208 | 0.204 | 0.161 | 0.141 |
| 950 | 0.286 | 0.278 | 0.269 | 0.220 | 0.222 | 0.178 | 0.153 |
| 900 | 0.318 | 0.306 | 0.287 | 0.236 | 0.241 | 0.196 | 0.166 |
| 850 | 0.361 | 0.341 | 0.318 | 0.259 | 0.263 | 0.218 | 0.181 |
| 800 | 0.435 | 0.392 | 0.362 | 0.292 | 0.287 | 0.242 | 0.199 |
| 750 | 0.536 | 0.470 | 0.418 | 0.331 | 0.313 | 0.269 | 0.221 |
| 700 | 0.684 | 0.573 | 0.517 | 0.387 | 0.346 | 0.295 | 0.250 |
| 650 | 0.888 | 0.738 | 0.642 | 0.485 | 0.386 | 0.331 | 0.297 |
| 600 | 1.172 | 1.012 | 0.877 | 0.631 | 0.432 | 0.380 | 0.358 |
| 550 | 1.676 | 1.445 | 1.250 | 0.869 | 0.564 | 0.439 | 0.433 |
| 500 | 2.401 | 2.179 | 1.927 | 1.347 | 0.884 | 0.636 | 0.615 |
| 450 | 3.492 | 3.263 | 3.225 | 2.344 | 1.328 | 0.970 | 0.883 |
| 400 | 4.797 | 4.672 | 5.115 | 4.441 | 2.493 | 1.554 | 1.334 |
| 350 | 6.011 | 6.124 | 7.119 | 7.327 | 4.594 | 2.981 | 2.243 |
| 300 | | 7.506 | 9.432 | 10.937 | 8.029 | 5.962 | 3.982 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 475.1 | 559.3 | 823.0 | 768.4 | 588.5 | 497.8 | 597.9 |
| 900 | 417.7 | 479.4 | 607.8 | 645.3 | 575.5 | 492.7 | 582.9 |
| 850 | 328.2 | 414.3 | 515.3 | 514.6 | 591.1 | 480.9 | 545.0 |
| 800 | 286.2 | 335.2 | 422.8 | 396.5 | 562.4 | 492.0 | 503.3 |
| 750 | 244.2 | 261.9 | 330.3 | 347.2 | 491.8 | 487.6 | 424.1 |
| 700 | 214.0 | 229.4 | 267.5 | 287.2 | 441.6 | 447.7 | 350.1 |
| 650 | 191.4 | 183.7 | 204.8 | 209.6 | 391.3 | 391.6 | 307.5 |
| 600 | 168.6 | 152.3 | 165.6 | 177.3 | 341.0 | 329.5 | 264.9 |
| 550 | 145.5 | 135.1 | 132.8 | 144.7 | 217.7 | 267.4 | 222.2 |
| 500 | 138.1 | 123.7 | 108.5 | 106.1 | 111.7 | 166.2 | 174.7 |
| 450 | 141.0 | 130.6 | 98.5 | 83.3 | 98.1 | 112.4 | 130.9 |
| 400 | 190.6 | 165.5 | 126.2 | 90.9 | 81.0 | 92.1 | 112.5 |
| 350 | 271.5 | 210.8 | 177.3 | 109.9 | 86.5 | 78.2 | 92.9 |
| 300 | | 320.5 | 153.3 | 132.8 | 93.4 | 70.0 | 88.1 |
| LONG | -69.87 | -69.64 | -69.30 | -69.05 | -68.38 | -68.07 | -67.58 |
| LAT | -18.64 | -20.61 | -23.47 | -25.42 | -30.27 | -32.22 | -35.17 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3812 AT AGASTA, 63 7 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 145146 | 145239 | 145314 | 145406 | 145459 | 145534 | 145551 |
| 1000 | 0.140 | 0.118 | 0.107 | 0.105 | 0.094 | 0.085 | 0.098 |
| 950 | 0.151 | 0.130 | 0.118 | 0.114 | 0.103 | 0.093 | 0.108 |
| 900 | 0.166 | 0.143 | 0.129 | 0.126 | 0.116 | 0.103 | 0.118 |
| 850 | 0.183 | 0.159 | 0.141 | 0.140 | 0.132 | 0.115 | 0.133 |
| 800 | 0.202 | 0.180 | 0.158 | 0.157 | 0.149 | 0.129 | 0.151 |
| 750 | 0.227 | 0.210 | 0.179 | 0.178 | 0.169 | 0.147 | 0.173 |
| 700 | 0.258 | 0.248 | 0.207 | 0.209 | 0.200 | 0.185 | 0.199 |
| 650 | 0.296 | 0.293 | 0.251 | 0.247 | 0.238 | 0.232 | 0.248 |
| 600 | 0.342 | 0.354 | 0.306 | 0.299 | 0.290 | 0.289 | 0.309 |
| 550 | 0.409 | 0.442 | 0.384 | 0.365 | 0.363 | 0.354 | 0.393 |
| 500 | 0.490 | 0.548 | 0.521 | 0.442 | 0.453 | 0.428 | 0.508 |
| 450 | 0.651 | 0.761 | 0.726 | 0.574 | 0.609 | 0.547 | 0.663 |
| 400 | 0.987 | 1.102 | 1.046 | 0.894 | 0.872 | 0.817 | 0.961 |
| 350 | 1.546 | 1.760 | 1.613 | 1.479 | 1.299 | 1.204 | 1.427 |
| 300 | 3.250 | 3.104 | 2.623 | 2.738 | 2.045 | 1.872 | 2.168 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 579.8 | 512.1 | 550.1 | 520.5 | 479.6 | 500.9 | 517.6 |
| 900 | 521.9 | 470.7 | 515.4 | 468.9 | 412.6 | 459.2 | 444.0 |
| 850 | 490.0 | 417.9 | 468.3 | 438.9 | 393.2 | 416.9 | 411.5 |
| 800 | 458.1 | 377.5 | 419.0 | 408.8 | 373.8 | 378.7 | 380.5 |
| 750 | 425.6 | 350.9 | 369.7 | 375.9 | 354.9 | 338.2 | 349.5 |
| 700 | 392.9 | 324.2 | 325.4 | 329.3 | 315.3 | 296.3 | 318.4 |
| 650 | 360.1 | 297.5 | 287.4 | 282.6 | 274.8 | 254.3 | 275.3 |
| 600 | 324.7 | 267.7 | 249.4 | 257.8 | 245.1 | 229.7 | 231.8 |
| 550 | 279.6 | 233.0 | 211.3 | 237.1 | 224.7 | 219.7 | 204.0 |
| 500 | 234.4 | 198.3 | 173.1 | 216.4 | 204.3 | 209.7 | 187.4 |
| 450 | 182.5 | 157.9 | 145.6 | 182.2 | 170.1 | 189.0 | 169.1 |
| 400 | 120.8 | 124.5 | 128.0 | 108.4 | 132.8 | 139.5 | 141.7 |
| 350 | 90.9 | 98.8 | 112.9 | 92.8 | 121.1 | 122.8 | 125.7 |
| 300 | 73.4 | 84.0 | 102.4 | 80.1 | 105.7 | 113.8 | 139.7 |
| LONG | -67.22 | -66.62 | -66.20 | -65.50 | -64.70 | -64.06 | -63.75 |
| LAT | -37.12 | -40.36 | -42.00 | -44.88 | -47.79 | -49.71 | -50.65 |
| QUAL | 33 | 23 | 33 | 22 | 23 | 22 | 32 |

PASS 3812 AT SOLANT, 63 7 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 144908 | 145128 | 145203 | 145256 | 145331 | 145441 |
| 1000 | 0.235 | 0.126 | 0.113 | 0.090 | 0.094 | 0.096 |
| 950 | 0.249 | 0.133 | 0.123 | 0.100 | 0.105 | 0.105 |
| 900 | 0.264 | 0.142 | 0.134 | 0.112 | 0.116 | 0.116 |
| 850 | 0.281 | 0.156 | 0.148 | 0.126 | 0.129 | 0.129 |
| 800 | 0.300 | 0.173 | 0.166 | 0.143 | 0.145 | 0.147 |
| 750 | 0.324 | 0.200 | 0.190 | 0.165 | 0.163 | 0.168 |
| 700 | 0.356 | 0.237 | 0.219 | 0.194 | 0.189 | 0.196 |
| 650 | 0.398 | 0.285 | 0.251 | 0.234 | 0.221 | 0.234 |
| 600 | 0.484 | 0.344 | 0.298 | 0.287 | 0.267 | 0.285 |
| 550 | 0.629 | 0.437 | 0.371 | 0.370 | 0.333 | 0.354 |
| 500 | 0.947 | 0.551 | 0.480 | 0.480 | 0.432 | 0.462 |
| 450 | 1.559 | 0.771 | 0.705 | 0.688 | 0.632 | 0.625 |
| 400 | 2.902 | 1.148 | 1.132 | 1.021 | 0.966 | 0.907 |
| 350 | 5.840 | 1.933 | 1.924 | 1.607 | 1.549 | 1.433 |
| 300 | 11.648 | 3.510 | 3.424 | 2.728 | 2.681 | 2.475 |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 843.6 | 812.4 | 581.4 | 441.8 | 474.9 | 494.8 |
| 900 | 812.4 | 651.8 | 533.9 | 421.8 | 466.3 | 466.4 |
| 850 | 783.4 | 522.2 | 486.4 | 402.8 | 447.4 | 436.8 |
| 800 | 684.4 | 392.7 | 430.7 | 369.2 | 415.9 | 389.9 |
| 750 | 584.8 | 345.3 | 367.5 | 333.0 | 384.3 | 345.0 |
| 700 | 485.0 | 317.8 | 339.2 | 297.2 | 341.2 | 304.4 |
| 650 | 383.8 | 290.4 | 312.8 | 261.7 | 293.7 | 272.0 |
| 600 | 265.4 | 262.9 | 276.5 | 228.0 | 253.3 | 245.5 |
| 550 | 164.0 | 225.6 | 230.1 | 200.0 | 217.8 | 217.9 |
| 500 | 107.2 | 188.0 | 171.7 | 172.0 | 174.8 | 187.1 |
| 450 | 93.0 | 148.8 | 120.3 | 145.0 | 125.6 | 155.9 |
| 400 | 76.2 | 111.9 | 102.9 | 120.9 | 114.3 | 125.3 |
| 350 | 69.2 | 89.8 | 90.4 | 103.4 | 98.6 | 102.2 |
| 300 | 80.3 | 77.6 | 85.8 | 90.3 | 87.7 | 84.7 |
| LONG | -68.66 | -67.41 | -67.04 | -66.43 | -65.97 | -64.96 |
| LAT | -28.33 | -36.12 | -38.07 | -41.01 | -42.95 | -46.80 |
| QUAL | 33 | 33 | 33 | 33 | 23 | 31 |

PASS 3818 AT AGASTA, 63 7 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 20307 | 20342 | 20417 | 20452 | 20527 | 20602 | 20620 |
| 1000 | 0.108 | 0.109 | 0.125 | 0.137 | 0.151 | 0.160 | 0.185 |
| 950 | 0.126 | 0.132 | 0.152 | 0.165 | 0.180 | 0.192 | 0.219 |
| 900 | 0.151 | 0.161 | 0.189 | 0.206 | 0.221 | 0.237 | 0.271 |
| 850 | 0.182 | 0.195 | 0.229 | 0.255 | 0.271 | 0.301 | 0.342 |
| 800 | 0.219 | 0.236 | 0.277 | 0.312 | 0.332 | 0.382 | 0.430 |
| 750 | 0.261 | 0.284 | 0.332 | 0.381 | 0.408 | 0.481 | 0.545 |
| 700 | 0.314 | 0.343 | 0.399 | 0.462 | 0.497 | 0.597 | 0.684 |
| 650 | 0.380 | 0.419 | 0.488 | 0.564 | 0.623 | 0.783 | 0.888 |
| 600 | 0.463 | 0.517 | 0.601 | 0.723 | 0.805 | 1.024 | 1.192 |
| 550 | 0.562 | 0.643 | 0.767 | 0.921 | 1.046 | 1.386 | 1.637 |
| 500 | 0.732 | 0.821 | 0.987 | 1.224 | 1.403 | 1.899 | 2.266 |
| 450 | 1.010 | 1.120 | 1.338 | 1.649 | 1.934 | 2.705 | 3.213 |
| 400 | 1.516 | 1.709 | 1.922 | 2.331 | 2.755 | 4.010 | |
| 350 | 2.187 | 2.570 | 2.881 | 3.434 | 3.971 | 6.088 | |
| 300 | | | 4.127 | 5.243 | 5.746 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 292.7 | 259.4 | 253.9 | 247.1 | 263.4 | 248.5 | 266.9 |
| 900 | 279.3 | 256.4 | 248.3 | 236.5 | 247.7 | 228.5 | 232.6 |
| 850 | 271.3 | 260.6 | 260.2 | 242.6 | 246.6 | 222.3 | 224.7 |
| 800 | 274.1 | 262.2 | 264.2 | 248.6 | 244.8 | 216.4 | 216.9 |
| 750 | 276.8 | 263.3 | 264.1 | 244.2 | 237.6 | 211.6 | 210.3 |
| 700 | 269.7 | 257.1 | 257.9 | 238.4 | 230.5 | 206.7 | 203.7 |
| 650 | 257.3 | 244.3 | 242.2 | 230.0 | 218.2 | 193.9 | 188.9 |
| 600 | 241.0 | 229.5 | 225.7 | 213.6 | 201.2 | 180.6 | 166.6 |
| 550 | 224.6 | 213.4 | 206.4 | 197.3 | 184.5 | 167.3 | 159.3 |
| 500 | 184.0 | 188.0 | 184.7 | 178.8 | 168.6 | 152.0 | 150.7 |
| 450 | 146.3 | 143.4 | 154.2 | 159.4 | 152.0 | 135.7 | 129.1 |
| 400 | 131.7 | 120.9 | 133.6 | 138.9 | 139.9 | 123.6 | |
| 350 | 143.1 | 135.3 | 129.4 | 124.8 | 136.7 | 126.5 | |
| 300 | | | 152.4 | 125.8 | 139.0 | | |
| LONG | -65.26 | -65.07 | -64.88 | -64.68 | -64.50 | -64.31 | -64.21 |
| LAT | -11.87 | -9.90 | -7.92 | -5.93 | -3.95 | -1.98 | -0.96 |
| QUAL | 23 | 22 | 23 | 23 | 23 | 23 | 23 |

PASS 3819 AT QUITOE, 63 7 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 20756 | 20831 | 20906 | 20941 | 21033 | 21200 | 21235 |
| 1000 | 0.176 | 0.145 | 0.139 | 0.144 | 0.116 | 0.084 | 0.082 |
| 950 | 0.213 | 0.182 | 0.176 | 0.172 | 0.136 | 0.097 | 0.094 |
| 900 | 0.270 | 0.230 | 0.220 | 0.216 | 0.165 | 0.113 | 0.111 |
| 850 | 0.342 | 0.296 | 0.284 | 0.274 | 0.204 | 0.134 | 0.133 |
| 800 | 0.431 | 0.383 | 0.369 | 0.348 | 0.262 | 0.161 | 0.161 |
| 750 | 0.553 | 0.504 | 0.483 | 0.471 | 0.354 | 0.211 | 0.207 |
| 700 | 0.729 | 0.693 | 0.661 | 0.658 | 0.488 | 0.297 | 0.275 |
| 650 | 0.986 | 0.971 | 0.961 | 0.942 | 0.714 | 0.440 | 0.372 |
| 600 | 1.389 | 1.402 | 1.423 | 1.410 | 1.080 | 0.671 | 0.526 |
| 550 | 2.014 | 2.096 | 2.180 | 2.137 | 1.701 | 1.049 | 0.799 |
| 500 | 3.034 | 3.184 | 3.381 | 3.272 | 2.735 | 1.677 | 1.293 |
| 450 | 4.720 | 4.908 | 5.264 | 5.051 | 4.304 | 2.792 | 2.248 |
| 400 | | 7.469 | 7.873 | | 6.362 | 4.430 | 3.968 |
| 350 | | | | | | | 5.750 |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 244.1 | 212.0 | 209.7 | 262.3 | 279.9 | 329.7 | 335.4 |
| 900 | 220.6 | 206.0 | 206.5 | 225.6 | 249.2 | 298.9 | 291.0 |
| 850 | 217.4 | 195.4 | 197.6 | 207.1 | 219.2 | 269.1 | 269.2 |
| 800 | 207.2 | 190.3 | 186.8 | 187.0 | 187.7 | 239.3 | 233.4 |
| 750 | 193.0 | 167.7 | 174.5 | 163.8 | 161.2 | 180.4 | 185.2 |
| 700 | 175.7 | 154.1 | 152.5 | 147.0 | 146.8 | 140.3 | 175.0 |
| 650 | 157.0 | 145.2 | 132.3 | 133.9 | 130.7 | 125.1 | 161.1 |
| 600 | 141.4 | 131.0 | 123.1 | 123.0 | 116.1 | 117.3 | 135.7 |
| 550 | 129.4 | 122.8 | 114.7 | 118.6 | 108.5 | 109.9 | 113.7 |
| 500 | 116.0 | 115.8 | 115.4 | 115.6 | 106.1 | 102.6 | 97.6 |
| 450 | 115.7 | 114.5 | 114.5 | 121.2 | 113.0 | 101.7 | 88.8 |
| 400 | | 146.2 | 147.7 | | 169.8 | 118.9 | 98.6 |
| 350 | | | | | | | 223.3 |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -63.71 | -63.52 | -63.33 | -63.13 | -62.84 | -62.32 | -62.09 |
| LAT | 4.47 | 6.46 | 8.44 | 10.42 | 13.36 | 18.28 | 20.26 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 32 | 23 |

PASS 3819 AT FTMYRS, 63 7 6

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 21219 | 21253 | 21328 | 21403 | 21438 | 21513 | 21548 | 21623 |
| 1000 | 0.104 | 0.109 | 0.099 | 0.087 | 0.083 | 0.096 | 0.085 | 0.095 |
| 950 | 0.121 | 0.127 | 0.115 | 0.099 | 0.095 | 0.108 | 0.096 | 0.106 |
| 900 | 0.141 | 0.151 | 0.131 | 0.115 | 0.108 | 0.123 | 0.112 | 0.120 |
| 850 | 0.176 | 0.188 | 0.158 | 0.136 | 0.127 | 0.143 | 0.134 | 0.142 |
| 800 | 0.223 | 0.239 | 0.195 | 0.164 | 0.153 | 0.172 | 0.164 | 0.172 |
| 750 | 0.283 | 0.302 | 0.242 | 0.212 | 0.186 | 0.207 | 0.203 | 0.211 |
| 700 | 0.356 | 0.379 | 0.300 | 0.300 | 0.267 | 0.249 | 0.251 | 0.260 |
| 650 | 0.499 | 0.541 | 0.425 | 0.422 | 0.402 | 0.338 | 0.330 | 0.317 |
| 600 | 0.718 | 0.777 | 0.635 | 0.574 | 0.562 | 0.510 | 0.512 | 0.474 |
| 550 | 1.088 | 1.129 | 0.976 | 0.849 | 0.828 | 0.767 | 0.787 | 0.725 |
| 500 | 1.785 | 1.718 | 1.579 | 1.344 | 1.334 | 1.196 | 1.230 | 1.062 |
| 450 | 3.004 | 2.711 | 2.639 | 2.261 | 2.131 | 1.906 | 1.935 | 1.691 |
| 400 | 4.636 | 4.150 | 4.125 | 3.690 | 3.393 | 3.122 | 3.023 | 2.691 |
| 350 | | 5.559 | | | | | 4.547 | 4.122 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 306.5 | 290.0 | 337.2 | 374.1 | 381.7 | 381.6 | 347.9 | 415.4 |
| 900 | 280.0 | 265.9 | 311.9 | 333.0 | 329.6 | 344.8 | 309.5 | 365.8 |
| 850 | 249.2 | 233.4 | 265.3 | 290.4 | 286.8 | 300.4 | 271.1 | 306.5 |
| 800 | 219.6 | 213.0 | 234.9 | 234.0 | 250.7 | 274.7 | 245.3 | 263.7 |
| 750 | 202.1 | 200.0 | 215.6 | 195.6 | 214.5 | 249.0 | 224.9 | 242.4 |
| 700 | 184.6 | 186.6 | 196.2 | 177.8 | 169.6 | 223.4 | 204.5 | 221.1 |
| 650 | 158.7 | 154.3 | 155.5 | 160.4 | 132.5 | 182.9 | 175.3 | 199.7 |
| 600 | 131.8 | 136.3 | 120.7 | 146.0 | 132.9 | 125.2 | 119.6 | 160.0 |
| 550 | 114.6 | 129.2 | 111.6 | 117.9 | 122.6 | 119.3 | 115.4 | 121.9 |
| 500 | 98.0 | 116.4 | 102.5 | 105.8 | 107.7 | 111.7 | 112.8 | 119.8 |
| 450 | 104.2 | 111.4 | 104.2 | 95.3 | 106.2 | 105.4 | 112.0 | 110.8 |
| 400 | 140.3 | 137.4 | 129.1 | 125.4 | 121.4 | 101.2 | 115.5 | 114.0 |
| 350 | | 254.3 | | | | | 166.1 | 130.2 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -62.20 | -61.98 | -61.73 | -61.48 | -61.21 | -60.94 | -60.64 | -60.33 |
| LAT | 19.35 | 21.27 | 23.25 | 25.22 | 27.18 | 29.15 | 31.12 | 33.08 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 23 | 23 |

PASS 3832 AT QUITOE, 63 6 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 24339 | 24414 | 24506 | 24541 | 24634 |
| 1000 | 0.105 | 0.107 | 0.116 | 0.118 | 0.131 |
| 950 | 0.131 | 0.125 | 0.131 | 0.134 | 0.143 |
| 900 | 0.146 | 0.140 | 0.149 | 0.148 | 0.153 |
| 850 | 0.172 | 0.161 | 0.174 | 0.166 | 0.165 |
| 800 | 0.203 | 0.189 | 0.205 | 0.194 | 0.181 |
| 750 | 0.240 | 0.223 | 0.243 | 0.241 | 0.206 |
| 700 | 0.283 | 0.263 | 0.287 | 0.313 | 0.257 |
| 650 | 0.350 | 0.338 | 0.392 | 0.431 | 0.338 |
| 600 | 0.443 | 0.468 | 0.542 | 0.622 | 0.458 |
| 550 | 0.573 | 0.644 | 0.781 | 0.909 | 0.674 |
| 500 | 0.770 | 0.891 | 1.139 | 1.511 | 1.020 |
| 450 | 1.099 | 1.350 | 1.940 | 2.595 | 1.612 |
| 400 | 1.640 | 2.003 | 3.376 | 4.512 | 2.683 |
| 350 | 2.518 | 2.924 | 6.181 | 7.291 | 4.085 |
| 300 | 3.677 | 4.279 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | | 392.6 | 418.7 | 444.8 | 665.0 |
| 900 | 321.5 | 364.6 | 358.7 | 435.8 | 657.3 |
| 850 | 314.8 | 324.8 | 310.4 | 365.1 | 567.1 |
| 800 | 308.0 | 302.7 | 287.6 | 294.4 | 471.9 |
| 750 | 288.2 | 280.6 | 264.8 | 223.7 | 364.0 |
| 700 | 262.5 | 258.5 | 242.0 | 175.7 | 221.6 |
| 650 | 237.8 | 220.0 | 198.9 | 144.9 | 177.4 |
| 600 | 213.5 | 164.5 | 151.2 | 141.6 | 151.9 |
| 550 | 188.0 | 150.6 | 134.5 | 135.4 | 133.7 |
| 500 | 160.8 | 141.0 | 118.0 | 94.0 | 118.4 |
| 450 | 137.1 | 125.3 | 94.1 | 93.8 | 104.1 |
| 400 | 121.2 | 130.1 | 86.4 | 92.4 | 106.9 |
| 350 | 123.0 | 134.2 | 86.0 | 137.1 | 133.2 |
| 300 | 145.2 | 140.7 | | | |
| LONG | -75.58 | -75.40 | -75.13 | -74.94 | -74.65 |
| LAT | -1.09 | 2.06 | 8.53 | 8.76 | 9.68 |
| QUAL | 33 | 33 | 33 | 33 | 33 |

PASS 3833 AT RESLUT, 63 7 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 30853 | 30910 | 30928 | 31003 | 31020 | 31038 | 31055 | 31113 |
| 1000 | 0.130 | 0.135 | 0.175 | 0.161 | 0.158 | 0.168 | 0.153 | 0.172 |
| 950 | 0.147 | 0.154 | 0.194 | 0.180 | 0.181 | 0.189 | 0.173 | 0.195 |
| 900 | 0.169 | 0.176 | 0.215 | 0.203 | 0.204 | 0.214 | 0.198 | 0.221 |
| 850 | 0.194 | 0.201 | 0.241 | 0.230 | 0.232 | 0.244 | 0.227 | 0.250 |
| 800 | 0.224 | 0.234 | 0.273 | 0.265 | 0.266 | 0.279 | 0.260 | 0.284 |
| 750 | 0.261 | 0.273 | 0.314 | 0.307 | 0.307 | 0.324 | 0.298 | 0.324 |
| 700 | 0.309 | 0.322 | 0.364 | 0.365 | 0.364 | 0.380 | 0.352 | 0.381 |
| 650 | 0.367 | 0.381 | 0.433 | 0.440 | 0.435 | 0.460 | 0.420 | 0.459 |
| 600 | 0.438 | 0.458 | 0.536 | 0.529 | 0.532 | 0.564 | 0.519 | 0.563 |
| 550 | 0.557 | 0.577 | 0.664 | 0.664 | 0.664 | 0.697 | 0.643 | 0.697 |
| 500 | 0.706 | 0.725 | 0.852 | 0.840 | 0.842 | 0.889 | 0.815 | 0.865 |
| 450 | 0.908 | 0.947 | 1.107 | 1.080 | 1.083 | 1.144 | 1.033 | 1.085 |
| 400 | 1.168 | 1.232 | 1.431 | 1.402 | 1.386 | 1.454 | 1.334 | 1.377 |
| 350 | 1.513 | 1.591 | 1.800 | 1.815 | 1.728 | 1.791 | 1.718 | 1.752 |
| 300 | 1.887 | 2.018 | 2.151 | 2.271 | 2.044 | | 2.125 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 404.1 | 376.0 | 493.9 | 427.9 | 397.0 | 404.2 | 383.4 | 392.0 |
| 900 | 368.2 | 363.3 | 449.4 | 399.8 | 388.3 | 389.0 | 379.1 | 397.8 |
| 850 | 354.8 | 346.8 | 414.4 | 372.9 | 372.2 | 370.2 | 361.2 | 386.9 |
| 800 | 333.9 | 330.5 | 380.4 | 342.0 | 346.4 | 350.3 | 346.6 | 369.7 |
| 750 | 310.5 | 314.2 | 344.9 | 311.0 | 320.6 | 329.4 | 327.3 | 352.6 |
| 700 | 291.1 | 294.6 | 309.4 | 290.0 | 295.5 | 287.2 | 295.7 | 292.6 |
| 650 | 272.5 | 274.1 | 278.6 | 271.4 | 270.4 | 266.1 | 265.8 | 261.4 |
| 600 | 253.7 | 253.2 | 253.9 | 252.9 | 247.5 | 248.2 | 246.3 | 247.7 |
| 550 | 233.0 | 231.5 | 229.3 | 233.6 | 226.3 | 229.5 | 227.1 | 236.7 |
| 500 | 212.3 | 209.9 | 209.9 | 214.1 | 212.0 | 208.0 | 216.1 | 228.1 |
| 450 | 203.5 | 201.8 | 195.5 | 201.7 | 205.1 | 209.4 | 206.4 | 220.0 |
| 400 | 200.0 | 196.6 | 211.8 | 196.1 | 220.7 | 226.7 | 201.6 | 212.5 |
| 350 | 210.7 | 202.0 | 235.8 | 212.4 | 268.2 | 347.8 | 216.8 | 212.5 |
| 300 | 329.6 | 360.5 | 711.7 | 764.1 | 352.9 | | 260.4 | |
| LONG | -18.73 | -13.96 | -8.38 | 2.54 | 8.21 | 14.21 | 19.87 | 25.26 |
| LAT | 79.32 | 79.68 | 79.96 | 80.44 | 80.38 | 80.31 | 80.25 | 79.95 |
| QUAL | 31 | 31 | 32 | 32 | 32 | 32 | 32 | 31 |

PASS 3833 AT RESLUT, 63 7 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 30338 | 30355 | 30413 | 30431 | 30449 | 30506 | 30541 | 30556 |
| 1000 | 0.106 | 0.098 | 0.085 | 0.095 | 0.090 | 0.090 | 0.088 | 0.102 |
| 950 | 0.123 | 0.110 | 0.099 | 0.108 | 0.107 | 0.105 | 0.101 | 0.115 |
| 900 | 0.139 | 0.127 | 0.116 | 0.125 | 0.125 | 0.123 | 0.118 | 0.135 |
| 850 | 0.160 | 0.145 | 0.136 | 0.145 | 0.148 | 0.143 | 0.138 | 0.157 |
| 800 | 0.187 | 0.166 | 0.158 | 0.169 | 0.175 | 0.167 | 0.159 | 0.182 |
| 750 | 0.220 | 0.194 | 0.187 | 0.200 | 0.206 | 0.195 | 0.190 | 0.219 |
| 700 | 0.259 | 0.228 | 0.222 | 0.238 | 0.259 | 0.235 | 0.231 | 0.269 |
| 650 | 0.306 | 0.269 | 0.265 | 0.288 | 0.330 | 0.284 | 0.281 | 0.331 |
| 600 | 0.361 | 0.330 | 0.328 | 0.347 | 0.416 | 0.348 | 0.343 | 0.421 |
| 550 | 0.439 | 0.406 | 0.406 | 0.448 | 0.547 | 0.449 | 0.447 | 0.535 |
| 500 | 0.532 | 0.495 | 0.533 | 0.600 | 0.740 | 0.574 | 0.594 | 0.693 |
| 450 | 0.659 | 0.636 | 0.702 | 0.819 | 0.992 | 0.796 | 0.814 | 0.918 |
| 400 | 0.793 | 0.816 | 0.943 | 1.103 | 1.351 | 1.097 | 1.195 | 1.219 |
| 350 | | 1.037 | 1.255 | 1.393 | | 1.491 | | 1.582 |
| 300 | | 1.332 | | | | 2.002 | | 1.909 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 374.6 | 408.8 | 333.2 | 415.2 | 302.6 | 326.6 | 366.6 | 417.9 |
| 900 | 364.4 | 365.7 | 318.8 | 347.0 | 298.8 | 321.5 | 340.1 | 339.1 |
| 850 | 345.7 | 353.3 | 312.9 | 331.1 | 286.3 | 313.6 | 318.7 | 316.4 |
| 800 | 323.0 | 340.9 | 307.9 | 312.6 | 273.0 | 304.4 | 298.4 | 293.7 |
| 750 | 302.4 | 320.2 | 294.6 | 293.2 | 259.6 | 294.0 | 281.8 | 272.7 |
| 700 | 297.0 | 297.5 | 280.0 | 273.4 | 242.3 | 273.4 | 266.8 | 252.7 |
| 650 | 291.6 | 275.8 | 263.4 | 253.1 | 224.4 | 252.9 | 251.7 | 232.8 |
| 600 | 285.2 | 261.9 | 238.4 | 232.9 | 206.5 | 231.5 | 235.1 | 218.1 |
| 550 | 272.6 | 248.0 | 213.3 | 206.6 | 191.5 | 207.8 | 196.1 | 204.5 |
| 500 | 260.1 | 234.1 | 197.1 | 176.9 | 178.9 | 184.1 | 167.1 | 193.1 |
| 450 | 248.5 | 219.1 | 181.9 | 173.0 | 173.0 | 169.6 | 150.6 | 184.0 |
| 400 | 237.1 | 205.7 | 178.3 | 198.6 | 181.5 | 157.9 | 142.6 | 195.7 |
| 350 | | 203.0 | 285.6 | 288.9 | | 173.7 | | 232.6 |
| 300 | | 197.2 | | | | 594.1 | | 301.5 |
| LONG | -58.79 | -57.96 | -56.89 | -55.75 | -54.60 | -53.38 | -50.38 | -49.09 |
| LAT | 65.52 | 66.41 | 67.33 | 68.24 | 69.15 | 70.00 | 71.70 | 72.43 |
| QUAL | 33 | 33 | 32 | 33 | 33 | 32 | 33 | 33 |

PASS 3833 AT RESLUT, 63 7 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 30616 | 30633 | 30709 | 30725 | 30743 | 30800 | 30818 | 30835 |
| 1000 | 0.095 | 0.100 | 0.093 | 0.093 | 0.099 | 0.109 | 0.115 | 0.111 |
| 950 | 0.113 | 0.116 | 0.104 | 0.107 | 0.112 | 0.125 | 0.132 | 0.129 |
| 900 | 0.134 | 0.134 | 0.124 | 0.125 | 0.131 | 0.143 | 0.152 | 0.149 |
| 850 | 0.157 | 0.156 | 0.146 | 0.145 | 0.152 | 0.164 | 0.175 | 0.172 |
| 800 | 0.183 | 0.180 | 0.171 | 0.170 | 0.175 | 0.189 | 0.203 | 0.198 |
| 750 | 0.218 | 0.212 | 0.205 | 0.200 | 0.203 | 0.221 | 0.238 | 0.232 |
| 700 | 0.261 | 0.253 | 0.249 | 0.239 | 0.240 | 0.260 | 0.281 | 0.272 |
| 650 | 0.314 | 0.306 | 0.302 | 0.286 | 0.288 | 0.312 | 0.332 | 0.323 |
| 600 | 0.402 | 0.374 | 0.378 | 0.341 | 0.345 | 0.379 | 0.407 | 0.395 |
| 550 | 0.513 | 0.462 | 0.474 | 0.432 | 0.434 | 0.478 | 0.503 | 0.495 |
| 500 | 0.664 | 0.610 | 0.626 | 0.570 | 0.553 | 0.606 | 0.642 | 0.632 |
| 450 | 0.879 | 0.796 | 0.822 | 0.749 | 0.723 | 0.777 | 0.815 | 0.802 |
| 400 | 1.150 | 1.042 | 1.115 | 0.990 | 0.950 | 1.008 | 1.047 | 1.029 |
| 350 | 1.493 | 1.345 | 1.469 | 1.279 | 1.260 | 1.294 | 1.331 | 1.309 |
| 300 | | 1.729 | | 1.567 | 1.626 | 1.655 | 1.660 | 1.666 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 299.5 | 336.8 | 322.1 | 352.6 | 375.7 | 356.8 | 366.8 | |
| 900 | 305.9 | 335.1 | 306.8 | 331.4 | 343.8 | 361.9 | 350.4 | 344.1 |
| 850 | 300.6 | 329.3 | 295.7 | 319.2 | 343.1 | 348.0 | 338.4 | 338.1 |
| 800 | 293.4 | 318.9 | 285.3 | 306.6 | 333.4 | 333.0 | 321.8 | 326.3 |
| 750 | 277.7 | 295.7 | 273.5 | 293.9 | 309.8 | 315.2 | 306.5 | 312.2 |
| 700 | 262.1 | 273.4 | 261.5 | 278.4 | 289.1 | 297.4 | 292.6 | 298.1 |
| 650 | 246.0 | 255.8 | 248.3 | 262.0 | 270.6 | 268.4 | 278.7 | 276.3 |
| 600 | 227.3 | 238.2 | 224.1 | 245.6 | 252.0 | 235.1 | 248.2 | 238.7 |
| 550 | 208.7 | 221.2 | 201.9 | 224.9 | 228.6 | 223.3 | 222.0 | 220.7 |
| 500 | 196.3 | 207.0 | 190.9 | 200.9 | 203.6 | 213.2 | 216.7 | 216.8 |
| 450 | 191.8 | 192.9 | 179.9 | 187.3 | 190.8 | 206.3 | 211.4 | 212.9 |
| 400 | 191.8 | 195.4 | 177.8 | 192.9 | 183.0 | 208.2 | 211.6 | 211.6 |
| 350 | 197.5 | 195.1 | 162.5 | 222.2 | 192.1 | 203.1 | 216.9 | 204.7 |
| 300 | | 206.8 | | 569.5 | 213.7 | 208.1 | 259.5 | 231.0 |
| LONG | -46.84 | -44.81 | -40.56 | -37.34 | -34.29 | -31.40 | -27.10 | -23.04 |
| LAT | 73.34 | 74.11 | 75.69 | 76.32 | 77.04 | 77.71 | 78.26 | 78.77 |
| QUAL | 33 | 33 | 32 | 32 | 33 | 33 | 31 | 32 |

PASS 3833 AT RESLUT, 63 7 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 31130 | 31148 | 31205 | 31223 | 31240 |
| 1000 | 0.175 | 0.199 | 0.163 | 0.231 | 0.248 |
| 950 | 0.201 | 0.219 | 0.183 | 0.257 | 0.272 |
| 900 | 0.226 | 0.241 | 0.207 | 0.287 | 0.301 |
| 850 | 0.257 | 0.269 | 0.236 | 0.322 | 0.336 |
| 800 | 0.293 | 0.309 | 0.273 | 0.361 | 0.371 |
| 750 | 0.341 | 0.359 | 0.319 | 0.403 | 0.406 |
| 700 | 0.403 | 0.421 | 0.373 | 0.453 | 0.445 |
| 650 | 0.478 | 0.498 | 0.444 | 0.509 | 0.490 |
| 600 | 0.565 | 0.590 | 0.539 | 0.575 | 0.546 |
| 550 | 0.664 | 0.705 | 0.651 | 0.653 | 0.623 |
| 500 | 0.820 | 0.864 | 0.804 | 0.751 | 0.720 |
| 450 | 1.030 | 1.070 | 1.004 | 0.872 | 0.838 |
| 400 | 1.311 | 1.348 | 1.283 | 1.018 | 0.980 |
| 350 | 1.653 | 1.743 | 1.630 | | |
| 300 | 2.052 | 2.342 | 1.979 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | 387.1 | 518.1 | 411.6 | 453.7 | 508.2 |
| 900 | 388.2 | 460.4 | 386.8 | 443.2 | 479.7 |
| 850 | 371.8 | 405.6 | 354.2 | 441.6 | 490.3 |
| 800 | 355.3 | 377.7 | 332.3 | 438.0 | 518.8 |
| 750 | 328.5 | 349.7 | 317.3 | 433.8 | 534.6 |
| 700 | 297.6 | 322.2 | 302.3 | 426.8 | 523.6 |
| 650 | 288.8 | 305.4 | 287.6 | 419.6 | 477.4 |
| 600 | 281.6 | 288.5 | 273.2 | 401.6 | 410.4 |
| 550 | 274.4 | 269.5 | 258.8 | 371.2 | 384.8 |
| 500 | 245.0 | 247.1 | 237.5 | 355.0 | 359.3 |
| 450 | 216.9 | 227.4 | 216.0 | 342.3 | 335.8 |
| 400 | 216.0 | 211.1 | 212.5 | 333.1 | 430.8 |
| 350 | 223.7 | 181.2 | 239.9 | | |
| 300 | 331.0 | 175.0 | 356.3 | | |
| LONG | 30.12 | 35.28 | 39.77 | 43.59 | 47.20 |
| LAT | 79.58 | 79.20 | 78.77 | 78.15 | 77.57 |
| QUAL | 31 | 32 | 31 | 31 | 31 |

PASS 3853 AT RESLUT, 63 7 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 142009 | 142025 | 142042 | 142100 | 142117 | 142135 | 142154 | 142211 |
| 1000 | 0.144 | 0.129 | 0.152 | 0.130 | 0.155 | 0.140 | 0.172 | 0.138 |
| 950 | 0.165 | 0.149 | 0.153 | 0.149 | 0.175 | 0.158 | 0.198 | 0.162 |
| 900 | 0.191 | 0.172 | 0.176 | 0.172 | 0.198 | 0.179 | 0.226 | 0.185 |
| 850 | 0.222 | 0.199 | 0.202 | 0.199 | 0.224 | 0.206 | 0.262 | 0.208 |
| 800 | 0.262 | 0.231 | 0.233 | 0.231 | 0.255 | 0.237 | 0.307 | 0.240 |
| 750 | 0.311 | 0.272 | 0.271 | 0.269 | 0.297 | 0.271 | 0.362 | 0.281 |
| 700 | 0.369 | 0.324 | 0.319 | 0.315 | 0.347 | 0.314 | 0.449 | 0.335 |
| 650 | 0.459 | 0.386 | 0.378 | 0.367 | 0.409 | 0.373 | 0.569 | 0.406 |
| 600 | 0.592 | 0.485 | 0.467 | 0.452 | 0.507 | 0.454 | 0.724 | 0.517 |
| 550 | 0.768 | 0.618 | 0.586 | 0.574 | 0.627 | 0.565 | 0.942 | 0.664 |
| 500 | 1.007 | 0.802 | 0.743 | 0.733 | 0.799 | 0.728 | 1.261 | 0.913 |
| 450 | 1.358 | 1.056 | 0.966 | 0.947 | 1.035 | 0.975 | 1.698 | 1.262 |
| 400 | 1.823 | 1.397 | 1.280 | 1.257 | 1.367 | 1.318 | 2.304 | 1.716 |
| 350 | 2.421 | 1.840 | 1.704 | 1.655 | 1.809 | 1.734 | 2.940 | 2.324 |
| 300 | | 2.379 | 2.143 | 2.115 | 2.295 | 2.105 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 350.1 | 339.5 | 351.2 | 357.4 | 408.1 | 408.2 | 363.6 | 349.7 |
| 900 | 338.6 | 339.5 | 352.3 | 350.1 | 407.2 | 382.3 | 343.4 | 385.9 |
| 850 | 313.7 | 329.8 | 351.3 | 340.4 | 377.1 | 364.3 | 320.9 | 365.7 |
| 800 | 288.6 | 314.3 | 333.1 | 325.8 | 347.4 | 350.4 | 296.6 | 339.8 |
| 750 | 273.2 | 296.1 | 313.2 | 310.5 | 325.8 | 339.1 | 272.3 | 313.3 |
| 700 | 257.7 | 276.2 | 290.8 | 295.0 | 304.1 | 318.6 | 248.9 | 278.7 |
| 650 | 236.1 | 256.4 | 268.4 | 279.6 | 281.9 | 276.3 | 225.9 | 231.9 |
| 600 | 210.0 | 233.6 | 247.6 | 254.9 | 256.1 | 244.1 | 203.2 | 207.6 |
| 550 | 190.1 | 210.1 | 227.2 | 226.1 | 230.4 | 219.0 | 181.5 | 184.9 |
| 500 | 177.3 | 192.4 | 206.3 | 203.1 | 207.1 | 193.6 | 174.9 | 160.9 |
| 450 | 172.3 | 181.5 | 185.1 | 188.6 | 188.3 | 171.5 | 164.8 | 162.1 |
| 400 | 188.8 | 183.2 | 179.9 | 183.1 | 181.9 | 177.6 | 171.4 | 165.3 |
| 350 | 244.7 | 188.1 | 195.2 | 193.8 | 195.7 | 214.9 | 374.0 | 174.7 |
| 300 | | 229.3 | 296.2 | 251.2 | 256.9 | 334.8 | | |
| LONG | -177.55 | -174.92 | -172.13 | -169.17 | -160.94 | -152.22 | -143.02 | -137.55 |
| LAT | 80.16 | 80.26 | 80.37 | 80.49 | 80.27 | 80.04 | 79.80 | 79.41 |
| QUAL | 32 | 32 | 31 | 31 | 32 | 31 | 32 | 33 |

PASS 3832 AT AGASTA, 63 7 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 24147 | 24222 | 24322 |
| 1000 | 0.083 | 0.079 | 0.106 |
| 950 | 0.099 | 0.090 | 0.119 |
| 900 | 0.110 | 0.100 | 0.137 |
| 850 | 0.123 | 0.113 | 0.161 |
| 800 | 0.139 | 0.127 | 0.191 |
| 750 | 0.163 | 0.144 | 0.226 |
| 700 | 0.201 | 0.180 | 0.267 |
| 650 | 0.248 | 0.234 | 0.336 |
| 600 | 0.326 | 0.300 | 0.439 |
| 550 | 0.446 | 0.414 | 0.607 |
| 500 | 0.664 | 0.582 | 0.878 |
| 450 | 1.050 | 0.963 | 1.324 |
| 400 | 1.684 | 1.720 | 2.053 |
| 350 | 2.798 | 3.088 | 3.261 |
| 300 | 4.546 | | 4.711 |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 417.5 | 425.0 | 377.9 |
| 900 | 430.3 | 408.3 | 339.9 |
| 850 | 392.4 | 377.8 | 323.9 |
| 800 | 354.5 | 347.3 | 307.6 |
| 750 | 313.8 | 316.7 | 281.4 |
| 700 | 269.8 | 277.9 | 255.2 |
| 650 | 225.8 | 235.5 | 221.3 |
| 600 | 187.7 | 193.2 | 183.9 |
| 550 | 154.0 | 159.7 | 155.2 |
| 500 | 126.4 | 130.6 | 134.6 |
| 450 | 108.5 | 97.1 | 121.9 |
| 400 | 104.1 | 86.8 | 112.5 |
| 350 | 100.0 | 92.3 | 117.2 |
| 300 | 123.3 | | 177.2 |
| LONG | -76.18 | -75.99 | -75.55 |
| LAT | -7.43 | -5.44 | -2.05 |
| QUAL | 33 | 33 | 33 |

PASS 3853 AT RESLUT, 63 7 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 142228 | 142245 | 142304 | 142320 | 142337 | 142355 | 142412 | 142430 |
| 1000 | 0.135 | 0.150 | 0.131 | 0.112 | 0.116 | 0.134 | 0.131 | 0.163 |
| 950 | 0.157 | 0.175 | 0.159 | 0.133 | 0.136 | 0.155 | 0.152 | 0.185 |
| 900 | 0.181 | 0.201 | 0.186 | 0.159 | 0.159 | 0.179 | 0.177 | 0.212 |
| 850 | 0.208 | 0.230 | 0.217 | 0.188 | 0.185 | 0.207 | 0.205 | 0.242 |
| 800 | 0.242 | 0.267 | 0.252 | 0.220 | 0.214 | 0.239 | 0.237 | 0.276 |
| 750 | 0.287 | 0.310 | 0.299 | 0.263 | 0.254 | 0.280 | 0.281 | 0.316 |
| 700 | 0.340 | 0.365 | 0.356 | 0.315 | 0.302 | 0.335 | 0.333 | 0.375 |
| 650 | 0.418 | 0.446 | 0.425 | 0.379 | 0.358 | 0.399 | 0.394 | 0.444 |
| 600 | 0.527 | 0.547 | 0.543 | 0.481 | 0.454 | 0.475 | 0.482 | 0.525 |
| 550 | 0.674 | 0.687 | 0.689 | 0.607 | 0.581 | 0.588 | 0.610 | 0.659 |
| 500 | 0.864 | 0.864 | 0.874 | 0.765 | 0.734 | 0.741 | 0.766 | 0.851 |
| 450 | 1.106 | 1.106 | 1.140 | 0.992 | 0.957 | 0.923 | 0.970 | 1.094 |
| 400 | 1.539 | 1.423 | 1.473 | 1.275 | 1.257 | 1.292 | 1.300 | 1.476 |
| 350 | 2.055 | 1.806 | 1.887 | 1.689 | 1.641 | 1.777 | 1.754 | 2.071 |
| 300 | 2.593 | 2.190 | 2.297 | 2.149 | 2.076 | 2.292 | 2.312 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 342.8 | 345.9 | 283.6 | 285.7 | 317.2 | 339.7 | 325.6 | 369.7 |
| 900 | 346.7 | 347.7 | 316.0 | 294.1 | 321.8 | 341.8 | 327.7 | 362.6 |
| 850 | 327.3 | 339.4 | 309.6 | 293.2 | 314.8 | 328.5 | 319.5 | 353.7 |
| 800 | 308.3 | 325.3 | 301.5 | 290.6 | 306.9 | 314.7 | 311.0 | 344.7 |
| 750 | 289.7 | 311.1 | 285.0 | 276.2 | 289.6 | 302.2 | 297.1 | 332.4 |
| 700 | 271.1 | 292.0 | 268.6 | 261.5 | 272.3 | 290.5 | 283.1 | 309.6 |
| 650 | 247.7 | 261.6 | 252.2 | 247.1 | 255.0 | 278.7 | 269.2 | 286.8 |
| 600 | 221.0 | 235.7 | 236.6 | 235.0 | 239.7 | 267.0 | 253.8 | 264.0 |
| 550 | 199.5 | 225.8 | 221.1 | 222.9 | 224.8 | 245.6 | 236.9 | 239.3 |
| 500 | 185.4 | 214.0 | 207.3 | 211.2 | 209.8 | 219.3 | 220.1 | 213.6 |
| 450 | 183.4 | 200.9 | 200.8 | 201.4 | 198.2 | 192.9 | 201.2 | 188.1 |
| 400 | 181.2 | 206.8 | 206.1 | 193.4 | 188.4 | 174.3 | 176.0 | 163.4 |
| 350 | 194.4 | 232.9 | 232.2 | 197.6 | 213.0 | 192.7 | 184.8 | 176.6 |
| 300 | 241.6 | 288.6 | 415.4 | 170.0 | 313.6 | 467.6 | 252.9 | |
| LONG | -133.59 | -129.62 | -125.34 | -122.22 | -118.90 | -115.39 | -112.90 | -110.64 |
| LAT | 78.93 | 78.44 | 77.87 | 77.25 | 76.60 | 75.90 | 75.17 | 74.37 |
| QUAL | 33 | 31 | 31 | 31 | 31 | 31 | 31 | 32 |

PASS 3853 AT RESLUT, 63 7 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 142448 | 142505 | 142523 | 142540 | 142558 | 142617 | 142634 | 142651 |
| 1000 | 0.160 | 0.158 | 0.147 | 0.134 | 0.196 | 0.195 | 0.203 | 0.225 |
| 950 | 0.180 | 0.178 | 0.171 | 0.157 | 0.215 | 0.218 | 0.224 | 0.247 |
| 900 | 0.204 | 0.205 | 0.199 | 0.180 | 0.239 | 0.251 | 0.250 | 0.276 |
| 850 | 0.232 | 0.237 | 0.230 | 0.207 | 0.269 | 0.292 | 0.283 | 0.310 |
| 800 | 0.265 | 0.274 | 0.266 | 0.238 | 0.304 | 0.338 | 0.322 | 0.354 |
| 750 | 0.315 | 0.317 | 0.312 | 0.280 | 0.357 | 0.397 | 0.367 | 0.410 |
| 700 | 0.376 | 0.374 | 0.367 | 0.330 | 0.426 | 0.488 | 0.456 | 0.479 |
| 650 | 0.454 | 0.462 | 0.444 | 0.395 | 0.513 | 0.603 | 0.569 | 0.572 |
| 600 | 0.561 | 0.566 | 0.548 | 0.504 | 0.619 | 0.761 | 0.728 | 0.683 |
| 550 | 0.690 | 0.706 | 0.675 | 0.635 | 0.743 | 0.990 | 0.933 | 0.814 |
| 500 | 0.841 | 0.898 | 0.861 | 0.813 | 0.939 | 1.313 | 1.205 | 1.056 |
| 450 | 1.139 | 1.132 | 1.151 | 1.065 | 1.216 | 1.824 | 1.622 | 1.390 |
| 400 | 1.535 | 1.532 | 1.541 | 1.411 | 1.594 | 2.541 | 2.139 | 1.895 |
| 350 | 2.123 | 2.119 | 2.104 | 1.915 | 2.321 | | 2.693 | 2.596 |
| 300 | | 2.623 | | 2.276 | | | | 3.698 |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 407.7 | 397.7 | 327.8 | 335.2 | 490.6 | 389.4 | 455.8 | 472.8 |
| 900 | 385.2 | 349.8 | 331.9 | 351.2 | 440.8 | 362.6 | 411.5 | 429.1 |
| 850 | 359.3 | 336.7 | 329.5 | 340.6 | 403.6 | 335.4 | 382.0 | 396.5 |
| 800 | 333.4 | 325.7 | 327.0 | 328.2 | 366.4 | 307.5 | 352.5 | 365.1 |
| 750 | 306.7 | 310.6 | 304.3 | 303.2 | 327.3 | 281.1 | 322.9 | 334.5 |
| 700 | 279.9 | 295.5 | 279.0 | 278.2 | 287.6 | 258.6 | 274.4 | 305.0 |
| 650 | 257.3 | 268.9 | 259.4 | 255.7 | 266.3 | 236.1 | 225.4 | 285.3 |
| 600 | 243.5 | 244.3 | 242.7 | 237.5 | 255.0 | 213.5 | 207.6 | 265.6 |
| 550 | 229.7 | 224.5 | 226.0 | 219.3 | 243.8 | 190.8 | 199.2 | 245.9 |
| 500 | 215.9 | 210.1 | 207.4 | 202.4 | 221.8 | 174.0 | 190.0 | 213.2 |
| 450 | 190.7 | 195.6 | 186.2 | 187.4 | 194.2 | 167.8 | 178.7 | 177.4 |
| 400 | 164.3 | 169.5 | 164.3 | 179.6 | 160.9 | 794.9 | 208.2 | 165.6 |
| 350 | 189.0 | 175.8 | 144.0 | 189.5 | 967.4 | | 264.5 | 153.5 |
| 300 | | 2258.5 | | 1793.2 | | | | 624.4 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -108.39 | -106.43 | -104.81 | -103.29 | -101.67 | -100.36 | -99.22 | -98.09 |
| LAT | 73.57 | 72.79 | 71.93 | 71.11 | 70.25 | 69.29 | 68.43 | 67.57 |
| QUAL | 31 | 31 | 31 | 31 | 31 | 33 | 32 | 32 |

PASS 3853 AT RESLUT, 63 7 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 142709 | 142726 | 142744 | 142801 | 142819 | 142836 | 142853 |
| 1000 | 0.222 | 0.225 | 0.226 | 0.201 | 0.211 | 0.182 | 0.176 |
| 950 | 0.244 | 0.254 | 0.253 | 0.224 | 0.232 | 0.207 | 0.198 |
| 900 | 0.271 | 0.291 | 0.285 | 0.252 | 0.256 | 0.233 | 0.225 |
| 850 | 0.303 | 0.332 | 0.322 | 0.285 | 0.286 | 0.263 | 0.255 |
| 800 | 0.344 | 0.379 | 0.368 | 0.325 | 0.321 | 0.299 | 0.293 |
| 750 | 0.405 | 0.445 | 0.427 | 0.371 | 0.380 | 0.340 | 0.338 |
| 700 | 0.480 | 0.531 | 0.496 | 0.428 | 0.465 | 0.406 | 0.396 |
| 650 | 0.588 | 0.634 | 0.595 | 0.522 | 0.571 | 0.488 | 0.465 |
| 600 | 0.731 | 0.779 | 0.722 | 0.636 | 0.715 | 0.590 | 0.545 |
| 550 | 0.962 | 0.995 | 0.874 | 0.790 | 0.900 | 0.729 | 0.676 |
| 500 | 1.334 | 1.269 | 1.128 | 0.995 | 1.135 | 0.896 | 0.849 |
| 450 | 1.822 | 1.659 | 1.463 | 1.260 | 1.593 | 1.108 | 1.104 |
| 400 | 2.431 | 2.222 | 1.931 | 1.666 | 2.157 | 1.564 | 1.489 |
| 350 | | 2.906 | 2.580 | 2.265 | | 2.166 | 1.980 |
| 300 | | | | | | | 2.575 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 494.1 | 388.8 | 422.9 | 443.6 | 499.6 | 413.5 | 404.5 |
| 900 | 446.1 | 373.6 | 402.6 | 405.8 | 456.8 | 404.8 | 386.0 |
| 850 | 405.9 | 352.3 | 381.7 | 382.6 | 411.8 | 384.1 | 370.8 |
| 800 | 365.4 | 330.9 | 358.1 | 362.8 | 366.9 | 359.8 | 351.3 |
| 750 | 324.4 | 309.8 | 331.7 | 343.0 | 326.6 | 335.2 | 331.8 |
| 700 | 283.3 | 288.7 | 305.3 | 320.3 | 288.4 | 307.5 | 313.6 |
| 650 | 246.4 | 267.6 | 281.4 | 286.2 | 250.1 | 279.9 | 295.5 |
| 600 | 211.5 | 245.2 | 258.4 | 252.1 | 226.2 | 255.1 | 277.3 |
| 550 | 185.7 | 221.2 | 235.3 | 230.4 | 208.6 | 238.4 | 247.4 |
| 500 | 168.1 | 199.0 | 214.7 | 216.4 | 190.3 | 221.6 | 215.1 |
| 450 | 171.1 | 183.1 | 194.5 | 200.3 | 166.2 | 203.4 | 191.6 |
| 400 | 181.7 | 190.5 | 179.7 | 177.9 | 200.5 | 170.7 | 176.6 |
| 350 | | 245.5 | 220.7 | 231.7 | | 145.5 | 185.4 |
| 300 | | | | | | | 238.7 |
| LONG | -97.04 | -96.18 | -95.27 | -94.42 | -93.71 | -93.04 | -92.37 |
| LAT | 66.65 | 65.77 | 64.84 | 63.96 | 63.00 | 62.10 | 61.20 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 32 | 33 |

PASS 3853 AT OTTAWA, 63 7 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 143014 | 143049 | 143124 | 143159 | 143234 | 143309 | 143419 | 143454 |
| 1000 | 0.153 | 0.153 | 0.148 | 0.140 | 0.144 | 0.149 | 0.148 | 0.135 |
| 950 | 0.172 | 0.171 | 0.165 | 0.158 | 0.161 | 0.165 | 0.163 | 0.150 |
| 900 | 0.196 | 0.193 | 0.186 | 0.179 | 0.182 | 0.185 | 0.180 | 0.168 |
| 850 | 0.221 | 0.217 | 0.210 | 0.203 | 0.205 | 0.208 | 0.201 | 0.188 |
| 800 | 0.250 | 0.248 | 0.240 | 0.232 | 0.234 | 0.239 | 0.229 | 0.214 |
| 750 | 0.288 | 0.289 | 0.280 | 0.272 | 0.271 | 0.279 | 0.262 | 0.246 |
| 700 | 0.331 | 0.337 | 0.329 | 0.321 | 0.315 | 0.327 | 0.305 | 0.291 |
| 650 | 0.398 | 0.406 | 0.392 | 0.383 | 0.376 | 0.393 | 0.355 | 0.347 |
| 600 | 0.489 | 0.502 | 0.487 | 0.476 | 0.465 | 0.471 | 0.427 | 0.424 |
| 550 | 0.601 | 0.617 | 0.603 | 0.589 | 0.571 | 0.568 | 0.541 | 0.531 |
| 500 | 0.751 | 0.753 | 0.741 | 0.735 | 0.719 | 0.739 | 0.683 | 0.663 |
| 450 | 0.994 | 0.994 | 0.989 | 0.984 | 0.953 | 0.964 | 0.888 | 0.882 |
| 400 | 1.319 | 1.317 | 1.309 | 1.306 | 1.251 | 1.291 | 1.183 | 1.190 |
| 350 | 1.791 | 1.778 | 1.733 | 1.729 | 1.657 | 1.735 | 1.642 | 1.650 |
| 300 | 2.345 | 2.291 | 2.236 | 2.313 | 2.195 | 2.328 | 2.320 | 2.259 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 438.8 | 453.1 | 440.4 | 408.6 | 434.4 | 456.8 | 506.9 | 449.6 |
| 900 | 403.7 | 413.0 | 406.8 | 388.1 | 404.4 | 416.6 | 463.6 | 430.6 |
| 850 | 392.4 | 380.9 | 375.7 | 364.5 | 380.1 | 382.8 | 422.8 | 407.8 |
| 800 | 373.2 | 351.9 | 347.6 | 340.7 | 355.7 | 353.6 | 388.4 | 368.1 |
| 750 | 340.3 | 324.7 | 322.5 | 316.3 | 331.3 | 325.6 | 354.1 | 329.8 |
| 700 | 307.3 | 297.4 | 297.5 | 291.9 | 306.9 | 298.8 | 321.7 | 301.1 |
| 650 | 282.7 | 275.9 | 274.0 | 269.0 | 284.7 | 279.5 | 289.3 | 272.5 |
| 600 | 261.4 | 259.1 | 254.9 | 249.7 | 258.9 | 260.2 | 261.3 | 248.0 |
| 550 | 240.1 | 242.3 | 235.8 | 230.4 | 235.1 | 239.7 | 238.3 | 227.8 |
| 500 | 217.7 | 225.5 | 216.7 | 211.0 | 214.0 | 208.1 | 215.3 | 207.7 |
| 450 | 192.5 | 199.9 | 195.4 | 191.3 | 197.8 | 182.6 | 192.2 | 183.7 |
| 400 | 176.2 | 175.6 | 182.0 | 178.0 | 183.9 | 175.5 | 169.1 | 162.9 |
| 350 | 176.7 | 188.0 | 189.8 | 176.3 | 177.7 | 172.7 | 153.3 | 157.6 |
| 300 | 123.3 | 226.3 | 202.3 | 177.3 | 181.0 | 170.7 | 147.5 | 181.9 |
| LONG | -89.84 | -88.94 | -88.15 | -87.40 | -86.77 | -86.16 | -85.13 | -84.67 |
| LAT | 56.78 | 54.95 | 53.06 | 51.15 | 49.24 | 47.31 | 43.46 | 41.53 |
| QUAL | 22 | 21 | 22 | 23 | 22 | 22 | 22 | 23 |

PASS 3653 AT OTTAWA, 63 7 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 143529 | 143604 | 143639 | 143714 | 143749 | 143824 | 143859 | 143917 |
| 1000 | 0.134 | 0.136 | 0.131 | 0.127 | 0.138 | 0.143 | 0.145 | 0.136 |
| 950 | 0.150 | 0.152 | 0.145 | 0.140 | 0.152 | 0.157 | 0.160 | 0.150 |
| 900 | 0.170 | 0.171 | 0.162 | 0.157 | 0.171 | 0.175 | 0.179 | 0.167 |
| 850 | 0.192 | 0.190 | 0.181 | 0.176 | 0.193 | 0.197 | 0.201 | 0.188 |
| 800 | 0.220 | 0.216 | 0.208 | 0.199 | 0.222 | 0.226 | 0.228 | 0.215 |
| 750 | 0.254 | 0.248 | 0.241 | 0.231 | 0.259 | 0.261 | 0.262 | 0.247 |
| 700 | 0.299 | 0.286 | 0.282 | 0.269 | 0.304 | 0.304 | 0.304 | 0.285 |
| 650 | 0.352 | 0.345 | 0.334 | 0.324 | 0.360 | 0.356 | 0.359 | 0.331 |
| 600 | 0.429 | 0.418 | 0.393 | 0.390 | 0.427 | 0.419 | 0.428 | 0.402 |
| 550 | 0.541 | 0.512 | 0.501 | 0.469 | 0.503 | 0.535 | 0.518 | 0.490 |
| 500 | 0.682 | 0.662 | 0.641 | 0.607 | 0.679 | 0.682 | 0.677 | 0.631 |
| 450 | 0.914 | 0.858 | 0.836 | 0.784 | 0.918 | 0.885 | 0.881 | 0.827 |
| 400 | 1.243 | 1.175 | 1.100 | 1.044 | 1.221 | 1.163 | 1.172 | 1.104 |
| 350 | 1.745 | 1.624 | 1.506 | 1.417 | 1.626 | 1.580 | 1.578 | 1.491 |
| 300 | 2.449 | 2.294 | 2.128 | 2.052 | 2.260 | 2.177 | 2.215 | 2.066 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 431.4 | 465.1 | 471.1 | 496.3 | 471.3 | 479.7 | 485.3 | 481.3 |
| 900 | 399.3 | 430.4 | 433.6 | 439.2 | 417.8 | 437.1 | 438.4 | 441.8 |
| 850 | 374.5 | 405.7 | 396.3 | 408.2 | 380.1 | 397.5 | 407.3 | 405.3 |
| 800 | 354.3 | 376.2 | 367.1 | 375.0 | 350.3 | 370.5 | 379.1 | 374.7 |
| 750 | 334.1 | 346.7 | 338.0 | 338.4 | 329.0 | 343.4 | 353.0 | 347.8 |
| 700 | 304.8 | 317.3 | 310.2 | 301.9 | 307.8 | 316.4 | 326.9 | 324.1 |
| 650 | 275.3 | 288.7 | 283.3 | 280.7 | 285.4 | 289.3 | 297.0 | 298.6 |
| 600 | 249.2 | 260.1 | 256.5 | 260.2 | 263.0 | 262.5 | 266.2 | 265.1 |
| 550 | 226.1 | 231.9 | 232.2 | 239.6 | 240.6 | 237.9 | 237.0 | 231.6 |
| 500 | 203.1 | 205.3 | 207.9 | 216.8 | 208.1 | 213.2 | 214.0 | 208.4 |
| 450 | 179.0 | 180.3 | 189.4 | 193.9 | 174.7 | 192.9 | 190.9 | 188.3 |
| 400 | 157.6 | 165.6 | 175.1 | 172.5 | 171.9 | 176.5 | 176.7 | 173.5 |
| 350 | 149.8 | 152.2 | 156.4 | 152.3 | 165.8 | 163.1 | 159.4 | 161.3 |
| 300 | 159.9 | 149.2 | 147.8 | 145.0 | 159.0 | 173.3 | 146.9 | 155.6 |
| LONG | -84.26 | -83.86 | -83.50 | -83.16 | -82.84 | -82.54 | -82.26 | -82.13 |
| LAT | 39.60 | 37.66 | 35.71 | 33.76 | 31.81 | 29.86 | 27.92 | 26.91 |
| QUAL | 22 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 3853 AT QUITOE, 63 7 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 144319 | 144354 | 144427 | 144504 | 144537 | 144632 | 144705 | 144757 |
| 1000 | 0.191 | 0.186 | 0.188 | 0.181 | 0.178 | 0.199 | 0.220 | 0.216 |
| 950 | 0.209 | 0.211 | 0.211 | 0.204 | 0.199 | 0.222 | 0.243 | 0.234 |
| 900 | 0.233 | 0.237 | 0.239 | 0.231 | 0.225 | 0.249 | 0.272 | 0.258 |
| 850 | 0.263 | 0.271 | 0.271 | 0.265 | 0.254 | 0.281 | 0.305 | 0.284 |
| 800 | 0.300 | 0.312 | 0.307 | 0.305 | 0.288 | 0.317 | 0.345 | 0.314 |
| 750 | 0.342 | 0.358 | 0.347 | 0.353 | 0.329 | 0.358 | 0.391 | 0.355 |
| 700 | 0.390 | 0.419 | 0.410 | 0.409 | 0.387 | 0.424 | 0.443 | 0.414 |
| 650 | 0.463 | 0.494 | 0.492 | 0.473 | 0.459 | 0.505 | 0.550 | 0.485 |
| 600 | 0.577 | 0.581 | 0.591 | 0.579 | 0.576 | 0.613 | 0.699 | 0.585 |
| 550 | 0.718 | 0.705 | 0.751 | 0.734 | 0.755 | 0.798 | 0.928 | 0.750 |
| 500 | 0.951 | 0.970 | 1.011 | 1.025 | 0.990 | 1.056 | 1.328 | 1.067 |
| 450 | 1.296 | 1.386 | 1.466 | 1.494 | 1.432 | 1.588 | 2.166 | 1.774 |
| 400 | 1.872 | 2.034 | 2.203 | 2.228 | 2.117 | 2.537 | 3.891 | 3.367 |
| 350 | 2.862 | 3.070 | 3.370 | 3.370 | 3.195 | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 484.9 | 385.9 | 405.0 | 386.8 | 425.4 | 423.7 | 454.2 | 554.3 |
| 900 | 449.6 | 381.5 | 398.3 | 377.5 | 415.1 | 412.7 | 438.0 | 502.3 |
| 850 | 412.3 | 367.5 | 383.0 | 366.3 | 398.8 | 393.0 | 421.8 | 467.8 |
| 800 | 380.5 | 353.5 | 361.9 | 355.0 | 369.2 | 373.3 | 388.1 | 433.3 |
| 750 | 352.4 | 339.4 | 340.8 | 336.7 | 337.0 | 352.8 | 352.0 | 393.5 |
| 700 | 324.3 | 317.0 | 311.6 | 315.0 | 300.3 | 314.5 | 316.0 | 348.1 |
| 650 | 290.7 | 291.9 | 280.7 | 293.3 | 263.5 | 276.1 | 266.9 | 302.8 |
| 600 | 251.8 | 266.8 | 249.8 | 247.4 | 229.9 | 237.5 | 215.5 | 251.7 |
| 550 | 212.8 | 232.8 | 211.2 | 188.3 | 198.6 | 197.7 | 168.3 | 189.6 |
| 500 | 179.5 | 167.3 | 164.3 | 152.0 | 167.8 | 158.1 | 128.7 | 130.5 |
| 450 | 151.8 | 139.8 | 137.8 | 132.6 | 144.8 | 119.4 | 92.7 | 87.6 |
| 400 | 133.6 | 127.1 | 122.9 | 124.9 | 121.1 | 104.8 | 132.1 | 87.0 |
| 350 | 116.3 | 125.6 | 119.1 | 127.8 | 148.7 | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -80.54 | -80.34 | -80.16 | -79.96 | -79.79 | -79.50 | -79.32 | -79.06 |
| LAT | 13.35 | 11.39 | 9.53 | 7.46 | 5.60 | 2.51 | 0.65 | -2.27 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 22 | 23 |

PASS 3853 AT QUITOE, 63 7 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 144832 | 144907 | 145002 | 145035 | 145127 | 145204 |
| 1000 | 0.194 | 0.189 | 0.178 | 0.182 | 0.163 | 0.176 |
| 950 | 0.212 | 0.208 | 0.196 | 0.199 | 0.178 | 0.182 |
| 900 | 0.232 | 0.227 | 0.212 | 0.214 | 0.192 | 0.195 |
| 850 | 0.256 | 0.250 | 0.231 | 0.231 | 0.207 | 0.209 |
| 800 | 0.285 | 0.276 | 0.251 | 0.250 | 0.223 | 0.224 |
| 750 | 0.318 | 0.305 | 0.277 | 0.278 | 0.244 | 0.244 |
| 700 | 0.355 | 0.346 | 0.314 | 0.318 | 0.274 | 0.272 |
| 650 | 0.421 | 0.405 | 0.366 | 0.369 | 0.326 | 0.322 |
| 600 | 0.515 | 0.490 | 0.512 | 0.474 | 0.405 | 0.402 |
| 550 | 0.682 | 0.698 | 0.736 | 0.691 | 0.556 | 0.546 |
| 500 | 1.015 | 1.092 | 1.094 | 1.056 | 0.842 | 0.804 |
| 450 | 1.839 | 2.007 | 2.274 | 2.050 | 1.489 | 1.202 |
| 400 | 3.620 | 3.831 | 4.139 | 3.932 | 2.778 | 2.229 |
| 350 | | 5.246 | | 5.705 | 5.109 | 4.239 |
| 300 | | | | | | 7.192 |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 537.8 | 511.2 | 556.9 | 597.7 | 660.1 | 768.1 |
| 900 | 513.8 | 525.4 | 589.4 | 636.3 | 647.9 | 719.5 |
| 850 | 479.9 | 518.1 | 592.9 | 616.4 | 664.5 | 760.1 |
| 800 | 444.1 | 502.4 | 522.2 | 512.7 | 595.2 | 628.3 |
| 750 | 408.2 | 432.2 | 443.1 | 435.9 | 486.2 | 525.7 |
| 700 | 372.3 | 363.7 | 357.2 | 368.4 | 361.5 | 379.1 |
| 650 | 310.0 | 296.3 | 270.0 | 300.8 | 287.7 | 285.4 |
| 600 | 236.7 | 226.6 | 170.3 | 215.3 | 214.2 | 203.5 |
| 550 | 168.5 | 138.6 | 127.3 | 123.8 | 139.9 | 146.4 |
| 500 | 110.8 | 103.8 | 103.0 | 103.2 | 105.7 | 121.8 |
| 450 | 78.8 | 76.6 | 75.2 | 71.6 | 83.0 | 109.3 |
| 400 | 87.9 | 105.0 | 103.7 | 92.0 | 81.6 | 76.6 |
| 350 | | 350.0 | | 265.1 | 99.2 | 83.9 |
| 300 | | | | | | 131.1 |
| LONG | -78.87 | -78.68 | -78.39 | -78.21 | -77.91 | -77.76 |
| LAT | -4.24 | -6.20 | -9.29 | -11.15 | -14.17 | -16.14 |
| QUAL | 23 | 22 | 23 | 23 | 23 | 23 |

PASS 3853 AT AGASTA, 63 7 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 145319 | 145354 | 145429 | 145504 | 145557 | 145632 | 145724 | 145759 |
| 1000 | 0.151 | 0.159 | 0.143 | 0.132 | 0.118 | 0.119 | 0.104 | 0.104 |
| 950 | 0.162 | 0.168 | 0.152 | 0.141 | 0.126 | 0.127 | 0.112 | 0.112 |
| 900 | 0.174 | 0.179 | 0.160 | 0.151 | 0.134 | 0.134 | 0.118 | 0.119 |
| 850 | 0.189 | 0.192 | 0.168 | 0.161 | 0.143 | 0.142 | 0.124 | 0.125 |
| 800 | 0.206 | 0.207 | 0.181 | 0.172 | 0.153 | 0.152 | 0.132 | 0.132 |
| 750 | 0.225 | 0.225 | 0.200 | 0.186 | 0.166 | 0.164 | 0.141 | 0.140 |
| 700 | 0.245 | 0.245 | 0.224 | 0.202 | 0.181 | 0.180 | 0.153 | 0.153 |
| 650 | 0.279 | 0.268 | 0.249 | 0.224 | 0.198 | 0.200 | 0.167 | 0.174 |
| 600 | 0.313 | 0.302 | 0.277 | 0.252 | 0.220 | 0.224 | 0.187 | 0.202 |
| 550 | 0.395 | 0.359 | 0.307 | 0.285 | 0.256 | 0.252 | 0.217 | 0.235 |
| 500 | 0.546 | 0.516 | 0.379 | 0.364 | 0.300 | 0.284 | 0.265 | 0.286 |
| 450 | 0.857 | 0.736 | 0.556 | 0.512 | 0.431 | 0.393 | 0.368 | 0.353 |
| 400 | 1.397 | 1.070 | 0.868 | 0.713 | 0.631 | 0.564 | 0.514 | 0.498 |
| 350 | 2.746 | 1.885 | 1.404 | 1.054 | 0.905 | 0.825 | 0.761 | 0.766 |
| 300 | 5.947 | | 2.408 | 1.842 | 1.521 | 1.357 | 1.247 | 1.292 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 694.4 | 842.6 | 948.2 | 754.2 | 770.2 | 836.0 | 85[illegible].7 | |
| 900 | 637.8 | 753.0 | 892.8 | 757.6 | 764.6 | 832.2 | 966.2 | 935.2 |
| 850 | 62[illegible].7 | 674.8 | 772.1 | 724.5 | 714.1 | 761.5 | 87[illegible].4 | 898.2 |
| 800 | 6[illegible]3.6 | 615.8 | 668.5 | 672.6 | 663.6 | 676.1 | 755.[illegible] | 777.7 |
| 750 | 592.2 | 575.6 | 572.2 | 602.3 | 608.7 | 590.6 | 666.2 | 657.2 |
| 700 | 551.5 | 535.3 | 479.5 | 532.7 | 553.1 | 523.1 | 6[illegible]1.7 | 555.8 |
| 650 | 435.9 | 495.1 | 437.1 | 466.5 | 497.6 | 472.7 | 537.1 | 480.3 |
| 600 | 256.4 | 388.3 | 394.6 | 400.3 | 430.8 | 422.2 | 397.[illegible] | 404.7 |
| 550 | 192.3 | 227.9 | 352.2 | 334.1 | 335.4 | 371.8 | 3[illegible]2.2 | 329.2 |
| 500 | 131.2 | 137.6 | 240.0 | 238.8 | 240.0 | 321.3 | 218.[illegible] | 263.9 |
| 450 | 1[illegible]5.4 | 130.8 | 122.5 | 146.6 | 158.6 | 195.3 | 147.1 | 202.5 |
| 400 | 91.9 | 117.0 | 111.1 | 139.3 | 128.5 | 132.6 | 134.1 | 147.0 |
| 350 | 67.4 | 85.0 | 103.0 | 115.1 | 120.8 | 120.0 | 113.7 | 109.6 |
| 300 | 69.2 | | 79.9 | 79.3 | 95.8 | 93.1 | 93.8 | 84.3 |
| LONG | -77.23 | -77.00 | -76.75 | -76.50 | -76.09 | -75.79 | -75.32 | -74.99 |
| LAT | -2[illegible].34 | -22.30 | -24.26 | -26.22 | -29.18 | -31.14 | -34.[illegible]4 | -35.98 |
| QUAL | 23 | 23 | 23 | 22 | 23 | 23 | 23 | 23 |

PASS 3853 AT AGASTA, 63 7 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 145834 | 145852 |
| 1000 | 0.112 | 0.100 |
| 950 | 0.117 | 0.107 |
| 900 | 0.122 | 0.114 |
| 850 | 0.130 | 0.122 |
| 800 | 0.140 | 0.131 |
| 750 | 0.150 | 0.142 |
| 700 | 0.163 | 0.157 |
| 650 | 0.181 | 0.182 |
| 600 | 0.206 | 0.211 |
| 550 | 0.243 | 0.246 |
| 500 | 0.300 | 0.304 |
| 450 | 0.387 | 0.390 |
| 400 | 0.525 | 0.526 |
| 350 | 0.741 | 0.757 |
| 300 | 1.043 | 1.159 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 1297.0 | 770.1 |
| 900 | 987.2 | 720.3 |
| 850 | 803.1 | 660.3 |
| 800 | 678.2 | 599.4 |
| 750 | 613.7 | 538.5 |
| 700 | 549.3 | 479.2 |
| 650 | 461.1 | 421.6 |
| 600 | 367.5 | 364.0 |
| 550 | 279.8 | 306.4 |
| 500 | 219.3 | 252.6 |
| 450 | 180.4 | 201.3 |
| 400 | 160.6 | 162.2 |
| 350 | 151.6 | 137.9 |
| 300 | 143.8 | 107.8 |
| LONG | -74.61 | -74.42 |
| LAT | -37.93 | -38.93 |
| QUAL | 33 | 33 |

PASS 3853 AT SULANT, 63 7 8

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 145834 | 150427 |
| 1000 | 0.111 | 0.037 |
| 950 | 0.115 | 0.040 |
| 900 | 0.118 | 0.044 |
| 850 | 0.124 | 0.049 |
| 800 | 0.134 | 0.054 |
| 750 | 0.145 | 0.063 |
| 700 | 0.157 | 0.073 |
| 650 | 0.175 | 0.084 |
| 600 | 0.199 | 0.099 |
| 550 | 0.234 | 0.123 |
| 500 | 0.283 | 0.154 |
| 450 | 0.366 | 0.192 |
| 400 | 0.486 | 0.260 |
| 350 | 0.658 | 0.382 |
| 300 | 0.901 | 0.594 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 1662.8 | 557.6 |
| 900 | 1315.1 | 511.1 |
| 850 | 925.8 | 464.5 |
| 800 | 645.9 | 420.1 |
| 750 | 581.5 | 387.2 |
| 700 | 540.8 | 354.3 |
| 650 | 447.1 | 307.7 |
| 600 | 354.5 | 268.2 |
| 550 | 286.4 | 247.6 |
| 500 | 236.6 | 227.0 |
| 450 | 184.4 | 206.3 |
| 400 | 171.9 | 175.4 |
| 350 | 160.7 | 140.9 |
| 300 | 146.5 | 97.1 |
| LONG | -74.61 | -68.43 |
| LAT | -37.93 | -57.33 |
| QUAL | 33 | 33 |

PASS 3866 AT RESLUT, 65 7 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 131322 | 131330 | 131347 | 131405 | 131422 | 131440 | 131457 | 131515 |
| 1000 | 0.074 | 0.075 | 0.062 | 0.071 | 0.071 | 0.091 | 0.089 | 0.100 |
| 950 | 0.088 | 0.085 | 0.072 | 0.083 | 0.081 | 0.104 | 0.104 | 0.117 |
| 900 | 0.104 | 0.098 | 0.084 | 0.096 | 0.093 | 0.120 | 0.121 | 0.136 |
| 850 | 0.122 | 0.116 | 0.098 | 0.113 | 0.108 | 0.138 | 0.141 | 0.155 |
| 800 | 0.143 | 0.137 | 0.116 | 0.132 | 0.126 | 0.160 | 0.162 | 0.178 |
| 750 | 0.167 | 0.162 | 0.138 | 0.155 | 0.146 | 0.185 | 0.187 | 0.205 |
| 700 | 0.197 | 0.189 | 0.163 | 0.183 | 0.172 | 0.218 | 0.223 | 0.242 |
| 650 | 0.235 | 0.224 | 0.193 | 0.216 | 0.205 | 0.258 | 0.267 | 0.292 |
| 600 | 0.280 | 0.274 | 0.227 | 0.266 | 0.243 | 0.305 | 0.321 | 0.353 |
| 550 | 0.347 | 0.333 | 0.290 | 0.338 | 0.293 | 0.375 | 0.404 | 0.436 |
| 500 | 0.458 | 0.418 | 0.374 | 0.436 | 0.375 | 0.473 | 0.507 | 0.546 |
| 450 | 0.622 | 0.547 | 0.515 | 0.565 | 0.479 | 0.597 | 0.636 | 0.677 |
| 400 | 0.801 | 0.720 | 0.684 | 0.724 | 0.672 | 0.766 | 0.813 | 0.872 |
| 350 | 1.009 | 0.941 | 0.879 | 0.912 | 0.896 | 0.991 | 1.038 | 1.125 |
| 300 | 1.257 | 1.179 | 1.121 | 1.168 | 1.139 | 1.299 | 1.333 | 1.444 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | 355.0 | 328.9 | 328.2 | 352.8 | 359.6 | | |
| 900 | 303.5 | 324.1 | 318.1 | 323.3 | 345.9 | 355.3 | 332.4 | 349.2 |
| 850 | 311.9 | 317.0 | 308.5 | 317.6 | 338.3 | 343.6 | 347.1 | 356.4 |
| 800 | 308.8 | 309.9 | 301.6 | 310.7 | 326.8 | 330.4 | 328.7 | 342.5 |
| 750 | 302.3 | 299.8 | 294.3 | 301.0 | 315.3 | 317.0 | 306.7 | 315.0 |
| 700 | 292.2 | 289.4 | 283.6 | 284.4 | 301.8 | 302.3 | 289.5 | 293.9 |
| 650 | 279.0 | 275.4 | 272.9 | 267.8 | 284.8 | 287.5 | 272.3 | 276.5 |
| 600 | 265.7 | 257.6 | 260.3 | 243.3 | 267.8 | 272.8 | 255.3 | 259.2 |
| 550 | 210.2 | 239.7 | 218.9 | 215.2 | 246.8 | 253.1 | 242.3 | 244.8 |
| 500 | 182.6 | 219.6 | 183.5 | 204.0 | 214.7 | 230.5 | 229.4 | 233.0 |
| 450 | 185.8 | 195.2 | 173.3 | 205.1 | 183.3 | 211.2 | 218.0 | 221.1 |
| 400 | 206.7 | 192.9 | 185.5 | 206.9 | 167.2 | 201.1 | 210.3 | 202.3 |
| 350 | 221.4 | 206.9 | 202.3 | 209.4 | 192.9 | 195.9 | 205.6 | 200.5 |
| 300 | 260.0 | 235.5 | 216.4 | 208.4 | 210.2 | 196.9 | 204.9 | 204.4 |
| LONG | -137.02 | -131.46 | -126.21 | -121.01 | -116.97 | -112.69 | -108.65 | -105.41 |
| LAT | 80.25 | 79.97 | 79.70 | 79.35 | 78.83 | 78.28 | 77.76 | 77.07 |
| QUAL | 31 | 31 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3866 AT RESLUT, 63 7 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 131532 | 131550 | 131607 | 131625 | 131642 | 131700 | 131717 | 131735 |
| 1000 | 0.093 | 0.114 | 0.215 | 0.206 | 0.152 | 0.200 | 0.145 | 0.169 |
| 950 | 0.108 | 0.126 | 0.242 | 0.233 | 0.167 | 0.222 | 0.165 | 0.185 |
| 900 | 0.124 | 0.142 | 0.276 | 0.264 | 0.189 | 0.249 | 0.188 | 0.207 |
| 850 | 0.142 | 0.164 | 0.318 | 0.299 | 0.220 | 0.281 | 0.215 | 0.237 |
| 800 | 0.163 | 0.189 | 0.365 | 0.340 | 0.259 | 0.321 | 0.249 | 0.272 |
| 750 | 0.190 | 0.218 | 0.413 | 0.386 | 0.298 | 0.367 | 0.291 | 0.311 |
| 700 | 0.220 | 0.251 | 0.482 | 0.444 | 0.341 | 0.425 | 0.341 | 0.360 |
| 650 | 0.256 | 0.293 | 0.567 | 0.515 | 0.407 | 0.492 | 0.407 | 0.435 |
| 600 | 0.301 | 0.346 | 0.668 | 0.603 | 0.494 | 0.573 | 0.493 | 0.522 |
| 550 | 0.360 | 0.427 | 0.820 | 0.728 | 0.616 | 0.693 | 0.596 | 0.645 |
| 500 | 0.469 | 0.531 | 1.016 | 0.886 | 0.776 | 0.838 | 0.740 | 0.799 |
| 450 | 0.671 | 0.725 | 1.268 | 1.127 | 0.979 | 1.030 | 0.923 | 1.031 |
| 400 | 0.863 | 0.971 | 1.595 | 1.430 | 1.257 | 1.281 | 1.167 | 1.321 |
| 350 | 1.090 | 1.253 | 2.004 | 1.712 | 1.577 | 1.611 | 1.462 | 1.664 |
| 300 | 1.369 | 1.581 | 2.483 | | 1.840 | 2.012 | 1.762 | 2.031 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 353.4 | 434.5 | 347.9 | 403.9 | 447.4 | 448.7 | 388.2 | 471.6 |
| 900 | 356.9 | 393.3 | 370.9 | 397.5 | 377.6 | 420.5 | 374.1 | 415.3 |
| 850 | 350.0 | 365.3 | 375.8 | 393.9 | 352.9 | 390.5 | 349.5 | 378.4 |
| 800 | 338.2 | 347.3 | 365.7 | 382.5 | 332.9 | 372.2 | 329.0 | 354.9 |
| 750 | 325.3 | 343.2 | 344.2 | 366.5 | 324.7 | 354.0 | 314.2 | 336.1 |
| 700 | 312.3 | 339.2 | 325.8 | 345.6 | 316.4 | 337.2 | 299.4 | 314.4 |
| 650 | 299.2 | 305.3 | 307.4 | 323.0 | 283.6 | 320.5 | 284.3 | 286.7 |
| 600 | 279.3 | 267.5 | 289.0 | 299.0 | 247.5 | 303.2 | 268.9 | 259.1 |
| 550 | 228.6 | 236.3 | 256.8 | 268.7 | 232.8 | 281.9 | 253.5 | 238.4 |
| 500 | 187.7 | 205.1 | 230.6 | 238.9 | 223.6 | 260.5 | 237.9 | 218.8 |
| 450 | 179.6 | 177.0 | 226.5 | 212.5 | 217.3 | 245.8 | 222.3 | 208.6 |
| 400 | 202.6 | 185.9 | 218.3 | 240.7 | 219.1 | 230.2 | 227.2 | 210.4 |
| 350 | 206.9 | 203.8 | 229.7 | 357.8 | 261.6 | 227.6 | 247.9 | 232.7 |
| 300 | 200.5 | 222.6 | 253.2 | | 524.4 | 256.7 | 355.2 | 345.9 |
| LONG | -102.54 | -99.51 | -96.99 | -94.86 | -92.84 | -90.71 | -89.26 | -87.72 |
| LAT | 76.40 | 75.69 | 74.97 | 74.16 | 73.39 | 72.57 | 71.75 | 70.87 |
| QUAL | 33 | 33 | 33 | 31 | 31 | 31 | 31 | 31 |

PASS 3806 AT RESLUT, 63 7 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 131732 | 131810 | 131828 | 131847 | 131904 | 131921 | 132148 | 132216 |
| 1000 | 0.197 | 0.164 | 0.125 | 0.148 | 0.166 | 0.171 | 0.165 | 0.138 |
| 950 | 0.220 | 0.182 | 0.144 | 0.168 | 0.189 | 0.192 | 0.190 | 0.159 |
| 900 | 0.247 | 0.203 | 0.163 | 0.191 | 0.216 | 0.216 | 0.216 | 0.183 |
| 850 | 0.279 | 0.228 | 0.184 | 0.219 | 0.247 | 0.244 | 0.248 | 0.210 |
| 800 | 0.318 | 0.258 | 0.209 | 0.252 | 0.286 | 0.278 | 0.287 | 0.243 |
| 750 | 0.365 | 0.292 | 0.240 | 0.290 | 0.338 | 0.317 | 0.338 | 0.282 |
| 700 | 0.422 | 0.335 | 0.280 | 0.339 | 0.402 | 0.363 | 0.407 | 0.337 |
| 650 | 0.494 | 0.396 | 0.336 | 0.402 | 0.500 | 0.439 | 0.510 | 0.404 |
| 600 | 0.592 | 0.470 | 0.406 | 0.501 | 0.641 | 0.545 | 0.655 | 0.505 |
| 550 | 0.709 | 0.578 | 0.501 | 0.630 | 0.802 | 0.686 | 0.892 | 0.648 |
| 500 | 0.865 | 0.713 | 0.626 | 0.862 | 1.022 | 0.859 | 1.207 | 0.895 |
| 450 | 1.063 | 0.939 | 0.792 | 1.168 | 1.312 | 1.082 | 1.563 | 1.228 |
| 400 | 1.401 | 1.239 | 1.008 | | 1.684 | 1.383 | 1.988 | 1.623 |
| 350 | 1.845 | 1.608 | 1.276 | | 2.154 | 1.720 | | 2.042 |
| 300 | 2.305 | 2.012 | 1.625 | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 432.9 | 464.0 | | 396.0 | 374.5 | 429.5 | 372.7 | 363.2 |
| 900 | 414.6 | 437.2 | 396.3 | 373.9 | 372.0 | 413.1 | 363.7 | 354.6 |
| 850 | 395.0 | 408.3 | 383.8 | 356.7 | 343.7 | 384.4 | 345.6 | 343.2 |
| 800 | 375.3 | 388.5 | 360.6 | 345.8 | 315.7 | 363.5 | 323.1 | 326.0 |
| 750 | 351.7 | 363.6 | 337.4 | 335.4 | 290.4 | 342.6 | 290.9 | 308.7 |
| 700 | 326.8 | 344.9 | 313.2 | 303.1 | 265.1 | 321.7 | 249.0 | 281.6 |
| 650 | 305.7 | 309.7 | 287.3 | 255.5 | 243.4 | 279.1 | 217.1 | 254.5 |
| 600 | 290.0 | 272.5 | 261.4 | 227.7 | 222.8 | 229.0 | 189.6 | 218.8 |
| 550 | 274.4 | 243.9 | 242.0 | 199.8 | 210.8 | 222.8 | 167.5 | 184.1 |
| 500 | 240.2 | 215.9 | 225.5 | 164.7 | 204.0 | 221.0 | 182.1 | 159.6 |
| 450 | 210.8 | 188.5 | 215.5 | 264.1 | 202.3 | 216.9 | 201.4 | 172.6 |
| 400 | 191.6 | 188.9 | 210.0 | | 204.0 | 216.6 | 257.3 | 197.9 |
| 350 | 205.0 | 207.5 | 209.3 | | 205.9 | 295.5 | | 292.4 |
| 300 | 247.5 | 282.6 | 215.0 | | | | | |
| LONG | -86.26 | -84.98 | -83.90 | -82.76 | -81.77 | -80.89 | -75.13 | -74.36 |
| LAT | 70.05 | 69.15 | 68.24 | 67.28 | 66.41 | 65.53 | 57.73 | 56.22 |
| QUAL | 31 | 31 | 33 | 31 | 33 | 31 | 31 | 31 |

PASS 3866 AT OTTAWA, 63 7 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 132619 | 132654 | 132729 | 132804 | 132839 | 132914 | 132949 | 133024 |
| 1000 | 0.160 | 0.164 | 0.175 | 0.181 | 0.170 | 0.184 | 0.185 | 0.188 |
| 950 | 0.178 | 0.184 | 0.196 | 0.203 | 0.197 | 0.205 | 0.208 | 0.211 |
| 900 | 0.201 | 0.206 | 0.221 | 0.229 | 0.224 | 0.231 | 0.233 | 0.236 |
| 850 | 0.227 | 0.233 | 0.250 | 0.259 | 0.254 | 0.261 | 0.263 | 0.266 |
| 800 | 0.261 | 0.265 | 0.290 | 0.299 | 0.293 | 0.300 | 0.304 | 0.305 |
| 750 | 0.302 | 0.309 | 0.339 | 0.349 | 0.339 | 0.348 | 0.356 | 0.353 |
| 700 | 0.355 | 0.363 | 0.401 | 0.413 | 0.398 | 0.412 | 0.421 | 0.414 |
| 650 | 0.420 | 0.435 | 0.475 | 0.504 | 0.470 | 0.491 | 0.504 | 0.501 |
| 600 | 0.519 | 0.526 | 0.590 | 0.614 | 0.584 | 0.585 | 0.605 | 0.606 |
| 550 | 0.651 | 0.648 | 0.749 | 0.763 | 0.730 | 0.759 | 0.780 | 0.746 |
| 500 | 0.836 | 0.858 | 0.963 | 0.997 | 0.936 | 0.986 | 1.004 | 0.975 |
| 450 | 1.107 | 1.142 | 1.269 | 1.319 | 1.228 | 1.311 | 1.337 | 1.284 |
| 400 | 1.492 | 1.541 | 1.711 | 1.803 | 1.651 | 1.779 | 1.812 | 1.747 |
| 350 | 2.043 | 2.146 | 2.390 | 2.531 | 2.262 | 2.485 | 2.529 | 2.402 |
| 300 | 2.824 | 2.982 | 3.366 | 3.548 | 3.190 | 3.621 | 3.640 | 3.357 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 445.7 | 449.8 | 430.2 | 425.7 | 373.2 | 450.1 | 440.4 | 438.7 |
| 900 | 407.5 | 419.9 | 398.2 | 394.2 | 378.1 | 409.3 | 409.3 | 416.9 |
| 850 | 378.7 | 387.4 | 367.6 | 369.1 | 367.7 | 376.3 | 374.3 | 386.6 |
| 800 | 353.9 | 354.6 | 340.6 | 339.5 | 346.9 | 346.8 | 345.6 | 355.7 |
| 750 | 329.1 | 324.4 | 313.9 | 309.5 | 325.0 | 315.2 | 317.8 | 324.7 |
| 700 | 298.4 | 294.3 | 286.6 | 283.6 | 295.0 | 292.9 | 291.0 | 296.3 |
| 650 | 267.4 | 270.2 | 259.3 | 263.9 | 265.1 | 270.8 | 265.5 | 274.0 |
| 600 | 242.6 | 246.9 | 237.0 | 244.2 | 243.5 | 248.1 | 240.0 | 251.7 |
| 550 | 219.0 | 222.6 | 216.4 | 222.2 | 222.0 | 216.2 | 216.3 | 227.9 |
| 500 | 197.8 | 195.2 | 196.8 | 195.3 | 201.5 | 186.8 | 192.6 | 199.6 |
| 450 | 179.3 | 173.5 | 178.9 | 172.5 | 181.9 | 173.7 | 174.7 | 176.0 |
| 400 | 166.2 | 160.5 | 159.8 | 156.7 | 165.9 | 159.0 | 159.0 | 163.7 |
| 350 | 158.8 | 151.9 | 148.6 | 148.7 | 155.7 | 142.2 | 144.7 | 155.9 |
| 300 | 162.3 | 194.5 | 158.9 | 153.9 | 139.8 | 133.5 | 138.3 | 146.9 |
| LONG | -69.64 | -69.39 | -68.98 | -68.59 | -68.24 | -67.90 | -67.59 | -67.30 |
| LAT | 42.92 | 40.99 | 39.06 | 37.12 | 35.18 | 33.23 | 31.28 | 29.33 |
| QUAL | 33 | 23 | 23 | 23 | 23 | 23 | 23 | 22 |

PASS 3866 AT OTTAWA, 63 7 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 133059 | 133134 | 133209 | 133244 |
| 1000 | 0.189 | 0.190 | 0.192 | 0.188 |
| 950 | 0.211 | 0.209 | 0.213 | 0.207 |
| 900 | 0.235 | 0.233 | 0.237 | 0.229 |
| 850 | 0.265 | 0.261 | 0.264 | 0.256 |
| 800 | 0.304 | 0.301 | 0.301 | 0.292 |
| 750 | 0.352 | 0.350 | 0.348 | 0.334 |
| 700 | 0.415 | 0.412 | 0.407 | 0.388 |
| 650 | 0.494 | 0.487 | 0.481 | 0.454 |
| 600 | 0.594 | 0.574 | 0.569 | 0.531 |
| 550 | 0.755 | 0.720 | 0.707 | 0.666 |
| 500 | 0.963 | 0.932 | 0.902 | 0.839 |
| 450 | 1.279 | 1.219 | 1.171 | 1.092 |
| 400 | 1.718 | 1.592 | 1.522 | 1.424 |
| 350 | 2.345 | 2.122 | 1.984 | 1.861 |
| 300 | 3.222 | 2.838 | 2.571 | |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 452.3 | 474.4 | 481.2 | 505.2 |
| 900 | 423.4 | 433.9 | 450.5 | 448.5 |
| 850 | 388.4 | 393.9 | 410.2 | 412.1 |
| 800 | 358.8 | 359.3 | 375.4 | 387.9 |
| 750 | 329.1 | 325.2 | 343.8 | 363.7 |
| 700 | 301.4 | 301.6 | 314.2 | 335.0 |
| 650 | 274.6 | 282.3 | 289.9 | 304.2 |
| 600 | 247.8 | 263.1 | 265.5 | 273.4 |
| 550 | 221.4 | 234.0 | 237.1 | 241.3 |
| 500 | 196.1 | 199.8 | 206.9 | 209.2 |
| 450 | 180.3 | 188.6 | 196.5 | 198.0 |
| 400 | 167.4 | 183.1 | 192.4 | 192.3 |
| 350 | 160.4 | 174.5 | 192.1 | 203.5 |
| 300 | 159.0 | 174.6 | 204.9 | |
| LONG | -67.02 | -66.76 | -66.51 | -66.27 |
| LAT | 27.38 | 25.42 | 23.46 | 21.50 |
| QUAL | 23 | 22 | 23 | 23 |

PASS 3366 AT QUITOE, 63 7 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 133617 | 133652 | 133727 | 133819 | 133854 | 133929 | 134012 | 134057 |
| 1000 | 0.178 | 0.205 | 0.208 | 0.209 | 0.196 | 0.221 | 0.254 | 0.254 |
| 950 | 0.194 | 0.229 | 0.237 | 0.238 | 0.225 | 0.247 | 0.273 | 0.280 |
| 900 | 0.210 | 0.260 | 0.269 | 0.271 | 0.258 | 0.276 | 0.304 | 0.312 |
| 850 | 0.228 | 0.299 | 0.305 | 0.310 | 0.297 | 0.311 | 0.337 | 0.350 |
| 800 | 0.249 | 0.344 | 0.349 | 0.355 | 0.342 | 0.352 | 0.374 | 0.395 |
| 750 | 0.277 | 0.398 | 0.403 | 0.410 | 0.394 | 0.401 | 0.431 | 0.450 |
| 700 | 0.310 | 0.460 | 0.465 | 0.472 | 0.458 | 0.461 | 0.514 | 0.514 |
| 650 | 0.359 | 0.538 | 0.539 | 0.563 | 0.531 | 0.558 | 0.617 | 0.627 |
| 600 | 0.428 | 0.678 | 0.683 | 0.696 | 0.666 | 0.691 | 0.794 | 0.812 |
| 550 | 0.601 | 0.857 | 0.871 | 0.878 | 0.893 | 0.909 | 1.055 | 1.143 |
| 500 | 0.998 | 1.119 | 1.177 | 1.174 | 1.250 | 1.332 | 1.659 | 1.876 |
| 450 | 1.405 | 1.606 | 1.628 | 1.700 | 1.872 | 2.158 | 2.834 | 3.343 |
| 400 | 2.236 | 2.031 | 2.226 | 2.573 | 3.100 | 3.776 | 4.663 | 5.043 |
| 350 | 3.553 | | 2.829 | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 616.8 | 402.5 | 362.4 | 371.8 | 350.3 | 434.1 | 593.0 | 468.1 |
| 900 | 602.6 | 389.6 | 380.1 | 372.2 | 351.6 | 421.7 | 483.6 | 447.2 |
| 850 | 562.3 | 372.6 | 369.0 | 365.0 | 351.5 | 398.5 | 441.1 | 426.4 |
| 800 | 521.8 | 359.6 | 361.7 | 352.9 | 351.5 | 375.7 | 398.5 | 397.6 |
| 750 | 458.1 | 333.9 | 332.0 | 330.8 | 335.0 | 353.0 | 352.0 | 355.4 |
| 700 | 394.4 | 306.1 | 312.2 | 306.7 | 300.6 | 325.3 | 302.8 | 313.3 |
| 650 | 321.1 | 278.0 | 290.7 | 277.4 | 266.3 | 260.0 | 253.5 | 256.0 |
| 600 | 243.2 | 247.0 | 238.0 | 238.7 | 225.5 | 212.3 | 203.9 | 187.0 |
| 550 | 165.5 | 210.1 | 169.7 | 200.6 | 184.6 | 167.5 | 154.0 | 130.6 |
| 500 | 110.4 | 189.5 | 169.7 | 164.3 | 147.1 | 127.3 | 107.0 | 90.2 |
| 450 | 125.6 | 170.2 | 158.5 | 133.4 | 113.9 | 93.8 | 91.4 | 93.6 |
| 400 | 107.3 | 175.8 | 174.9 | 131.0 | 105.8 | 118.8 | 158.9 | 230.7 |
| 350 | 108.2 | | 361.5 | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -65.00 | -64.81 | -64.63 | -64.35 | -64.16 | -63.98 | -63.76 | -63.52 |
| LAT | 9.55 | 7.58 | 5.61 | 2.69 | 0.72 | -1.24 | -3.66 | -6.19 |
| QUAL | 23 | 23 | 22 | 23 | 22 | 23 | 22 | 22 |

PASS 3R06 AT QUITOE, 63 7 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 134114 | 134149 | 134224 | 134259 | 134334 | 134427 | 134519 |
| 1000 | 0.240 | 0.215 | 0.217 | 0.211 | 0.228 | 0.191 | 0.232 |
| 950 | 0.263 | 0.241 | 0.241 | 0.238 | 0.249 | 0.213 | 0.221 |
| 900 | 0.291 | 0.267 | 0.268 | 0.262 | 0.269 | 0.233 | 0.243 |
| 850 | 0.322 | 0.296 | 0.293 | 0.287 | 0.294 | 0.255 | 0.269 |
| 800 | 0.361 | 0.333 | 0.327 | 0.320 | 0.324 | 0.281 | 0.295 |
| 750 | 0.407 | 0.376 | 0.367 | 0.358 | 0.359 | 0.319 | 0.323 |
| 700 | 0.460 | 0.439 | 0.424 | 0.402 | 0.399 | 0.372 | 0.364 |
| 650 | 0.593 | 0.567 | 0.533 | 0.489 | 0.511 | 0.440 | 0.428 |
| 600 | 0.772 | 0.755 | 0.722 | 0.639 | 0.687 | 0.558 | 0.489 |
| 550 | 1.108 | 1.088 | 1.088 | 0.942 | 1.010 | 0.797 | 0.589 |
| 500 | 1.804 | 1.978 | 1.925 | 1.602 | 1.728 | 1.406 | 0.778 |
| 450 | | 3.378 | 3.270 | 2.805 | 3.023 | 2.494 | 1.6.7 |
| 400 | | 4.947 | 4.825 | 4.265 | 4.835 | 4.305 | 2.973 |
| 350 | | | | 5.347 | 6.147 | 6.379 | 4.964 |
| 300 | | | | | | | 7.771 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 495.4 | 454.9 | 499.8 | 462.4 | 605.1 | 496.1 | 526.6 |
| 900 | 472.5 | 465.9 | 481.8 | 483.3 | 564.6 | 532.4 | 532.1 |
| 850 | 443.0 | 434.2 | 448.4 | 471.5 | 516.3 | 502.8 | 538.2 |
| 800 | 401.8 | 389.1 | 411.0 | 430.6 | 465.9 | 435.7 | 553.3 |
| 750 | 360.5 | 344.1 | 373.6 | 389.7 | 415.5 | 378.6 | 481.2 |
| 700 | 319.3 | 293.4 | 319.9 | 348.8 | 365.1 | 327.7 | 389.3 |
| 650 | 246.0 | 223.5 | 221.6 | 276.5 | 252.5 | 276.8 | 329.8 |
| 600 | 171.1 | 160.5 | 134.4 | 178.7 | 151.9 | 201.0 | 295.2 |
| 550 | 130.7 | 115.7 | 108.9 | 115.5 | 120.3 | 124.3 | 235.3 |
| 500 | 92.8 | 85.8 | 89.3 | 90.6 | 93.9 | 89.3 | 143.9 |
| 450 | | 104.7 | 108.8 | 103.1 | 96.0 | 87.5 | 57.8 |
| 400 | | 223.2 | 178.9 | 155.2 | 141.4 | 102.0 | 90.0 |
| 350 | | | | 465.5 | 425.7 | 197.5 | 104.4 |
| 300 | | | | | | | 151.1 |
| LONG | -63.43 | -63.24 | -63.05 | -62.86 | -62.53 | -62.32 | -61.99 |
| LAT | -7.15 | -9.11 | -11.08 | -13.04 | -16.13 | -17.98 | -20.90 |
| QUAL | 23 | 22 | 23 | 22 | 23 | 23 | 23 |

PASS 3866 AT AGASTA, 63 7 9

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 134317 | 134352 | 134427 | 134519 | 134652 | 134744 | 134820 | 134855 |
| 1000 | 0.209 | 0.202 | 0.199 | 0.189 | 0.159 | 0.140 | 0.125 | 0.117 |
| 950 | 0.226 | 0.220 | 0.218 | 0.204 | 0.172 | 0.150 | 0.136 | 0.128 |
| 900 | 0.245 | 0.240 | 0.236 | 0.222 | 0.188 | 0.160 | 0.147 | 0.139 |
| 850 | 0.268 | 0.260 | 0.257 | 0.243 | 0.205 | 0.171 | 0.160 | 0.151 |
| 800 | 0.300 | 0.288 | 0.284 | 0.268 | 0.228 | 0.187 | 0.174 | 0.163 |
| 750 | 0.348 | 0.325 | 0.319 | 0.297 | 0.254 | 0.208 | 0.190 | 0.177 |
| 700 | 0.411 | 0.379 | 0.363 | 0.333 | 0.285 | 0.234 | 0.208 | 0.196 |
| 650 | 0.490 | 0.449 | 0.433 | 0.384 | 0.328 | 0.265 | 0.233 | 0.220 |
| 600 | 0.599 | 0.548 | 0.535 | 0.497 | 0.379 | 0.301 | 0.265 | 0.251 |
| 550 | 0.961 | 0.837 | 0.733 | 0.657 | 0.449 | 0.343 | 0.314 | 0.295 |
| 500 | 1.493 | 1.482 | 1.249 | 0.861 | 0.602 | 0.464 | 0.386 | 0.371 |
| 450 | 2.563 | 2.210 | 2.237 | 1.584 | 0.894 | 0.664 | 0.555 | 0.557 |
| 400 | | 3.642 | 3.800 | 2.781 | 1.499 | 0.986 | 0.789 | 0.757 |
| 350 | | 5.401 | 5.916 | 4.576 | 2.606 | 1.544 | 1.160 | 1.122 |
| 300 | | | | 7.299 | 4.586 | 2.446 | 1.873 | 1.822 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 649.7 | 598.1 | 594.9 | 614.2 | 599.5 | 740.4 | 616.4 | |
| 900 | 593.0 | 611.8 | 576.8 | 572.9 | 551.2 | 738.9 | 615.7 | 615.5 |
| 850 | 487.0 | 537.5 | 527.5 | 537.2 | 504.8 | 650.6 | 598.3 | 637.3 |
| 800 | 389.6 | 453.4 | 472.4 | 521.8 | 472.4 | 539.7 | 570.6 | 604.4 |
| 750 | 345.1 | 377.9 | 414.2 | 469.6 | 440.0 | 457.7 | 533.9 | 534.2 |
| 700 | 299.5 | 324.8 | 352.2 | 375.9 | 406.3 | 415.2 | 493.7 | 470.3 |
| 650 | 248.9 | 268.4 | 269.0 | 286.7 | 358.2 | 372.4 | 427.3 | 410.9 |
| 600 | 195.0 | 205.4 | 204.8 | 217.0 | 310.1 | 329.6 | 351.6 | 355.0 |
| 550 | 111.3 | 136.3 | 139.9 | 169.2 | 255.8 | 286.7 | 257.8 | 274.9 |
| 500 | 103.2 | 107.5 | 92.9 | 138.3 | 172.5 | 195.4 | 198.4 | 186.5 |
| 450 | 102.0 | 108.3 | 87.9 | 86.5 | 116.1 | 134.4 | 141.8 | 138.0 |
| 400 | | 110.4 | 100.1 | 91.2 | 94.5 | 121.6 | 135.4 | 138.8 |
| 350 | | 181.4 | 155.9 | 106.4 | 88.6 | 113.8 | 119.6 | 120.6 |
| 300 | | | | 133.7 | 95.5 | 97.7 | 97.8 | 98.6 |
| LONG | -62.75 | -62.34 | -62.32 | -61.99 | -61.35 | -60.95 | -60.64 | -60.33 |
| LAT | -14.05 | -16.02 | -17.98 | -20.90 | -26.10 | -29.01 | -31.02 | -32.97 |
| QUAL | 23 | 23 | 22 | 23 | 23 | 23 | 23 | 33 |

PASS 3873 AT AGASTA, 63 710

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 24901 |
| 1000 | 0.081 |
| 950 | 0.090 |
| 900 | 0.099 |
| 850 | 0.112 |
| 800 | 0.131 |
| 750 | 0.156 |
| 700 | 0.198 |
| 650 | 0.271 |
| 600 | 0.393 |
| 550 | 0.590 |
| 500 | 0.890 |
| 450 | 1.351 |
| 400 | 2.149 |
| 350 | |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 542.3 |
| 900 | 462.6 |
| 850 | 370.4 |
| 800 | 310.4 |
| 750 | 260.4 |
| 700 | 195.7 |
| 650 | 153.4 |
| 600 | 131.8 |
| 550 | 121.6 |
| 500 | 121.2 |
| 450 | 116.0 |
| 400 | 115.4 |
| 350 | |
| 300 | |

| | |
|---|---|
| LONG | -83.50 |
| LAT | -5.08 |
| QUAL | 23 |

PASS 3874 AT QUITOE, 63 710

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 25122 | 25215 |
| 1000 | 0.120 | 0.121 |
| 950 | 0.136 | 0.137 |
| 900 | 0.149 | 0.150 |
| 850 | 0.163 | 0.164 |
| 800 | 0.186 | 0.181 |
| 750 | 0.225 | 0.215 |
| 700 | 0.263 | 0.264 |
| 650 | 0.392 | 0.351 |
| 600 | 0.565 | 0.482 |
| 550 | 0.912 | 0.777 |
| 500 | 1.408 | 1.298 |
| 450 | 2.318 | 2.144 |
| 400 | 3.514 | |
| 350 | | |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 900 | 551.6 | 574.2 |
| 850 | 446.8 | 488.5 |
| 800 | 354.1 | 398.2 |
| 750 | 276.9 | 317.5 |
| 700 | 203.5 | 236.9 |
| 650 | 153.5 | 181.8 |
| 600 | 125.5 | 137.2 |
| 550 | 111.6 | 108.3 |
| 500 | 108.4 | 100.1 |
| 450 | 114.2 | 107.5 |
| 400 | 145.8 | |
| 350 | | |
| 300 | | |

| | | |
|---|---|---|
| LONG | -82.76 | -82.48 |
| LAT | 2.69 | 5.89 |
| QUAL | 23 | 23 |

PASS 3874 AT OTTAWA, 63 710

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 30315 | 30350 | 30425 | 30500 | 30535 | 30610 | 30645 | 30720 |
| 1000 | 0.064 | 0.054 | 0.067 | 0.021 | 0.044 | 0.066 | 0.079 | 0.089 |
| 950 | 0.070 | 0.058 | 0.074 | 0.025 | 0.050 | 0.078 | 0.091 | 0.097 |
| 900 | 0.078 | 0.065 | 0.083 | 0.031 | 0.057 | 0.091 | 0.101 | 0.108 |
| 850 | 0.090 | 0.077 | 0.096 | 0.038 | 0.068 | 0.106 | 0.115 | 0.122 |
| 800 | 0.108 | 0.092 | 0.113 | 0.047 | 0.081 | 0.125 | 0.132 | 0.140 |
| 750 | 0.130 | 0.113 | 0.134 | 0.062 | 0.100 | 0.147 | 0.156 | 0.160 |
| 700 | 0.157 | 0.138 | 0.158 | 0.082 | 0.128 | 0.175 | 0.186 | 0.184 |
| 650 | 0.188 | 0.168 | 0.186 | 0.105 | 0.163 | 0.210 | 0.222 | 0.217 |
| 600 | 0.225 | 0.202 | 0.225 | 0.133 | 0.211 | 0.251 | 0.266 | 0.265 |
| 550 | 0.331 | 0.275 | 0.297 | 0.197 | 0.290 | 0.314 | 0.335 | 0.333 |
| 500 | 0.475 | 0.388 | 0.391 | 0.291 | 0.406 | 0.400 | 0.433 | 0.447 |
| 450 | 0.666 | 0.557 | 0.524 | 0.439 | 0.596 | 0.527 | 0.582 | 0.598 |
| 400 | 0.970 | 0.791 | 0.692 | 0.650 | 0.868 | 0.713 | 0.812 | 0.799 |
| 350 | 1.460 | 1.145 | 0.938 | 0.970 | 1.247 | 0.976 | 1.100 | 1.042 |
| 300 | | 1.567 | 1.165 | 1.367 | | 1.326 | 1.391 | 1.255 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 478.4 | 487.6 | 466.3 | 238.3 | 376.2 | 314.0 | 403.2 | 495.7 |
| 900 | 386.5 | 375.6 | 394.4 | 228.3 | 324.8 | 312.7 | 400.6 | 447.0 |
| 850 | 334.0 | 326.4 | 349.4 | 219.8 | 290.7 | 310.1 | 371.2 | 404.4 |
| 800 | 296.6 | 277.8 | 315.3 | 211.3 | 257.0 | 302.6 | 342.6 | 373.9 |
| 750 | 268.3 | 253.1 | 293.4 | 203.0 | 235.1 | 293.9 | 318.0 | 346.7 |
| 700 | 250.9 | 241.6 | 279.4 | 194.6 | 220.4 | 282.0 | 293.3 | 320.9 |
| 650 | 233.4 | 230.1 | 265.3 | 186.3 | 205.6 | 267.3 | 268.6 | 285.9 |
| 600 | 215.5 | 218.6 | 243.9 | 177.9 | 188.0 | 252.5 | 243.8 | 243.9 |
| 550 | 166.7 | 188.6 | 207.2 | 157.0 | 163.2 | 228.4 | 217.9 | 209.2 |
| 500 | 139.8 | 149.4 | 179.2 | 131.7 | 145.0 | 200.4 | 191.5 | 190.5 |
| 450 | 140.2 | 142.5 | 178.2 | 126.7 | 138.2 | 182.1 | 173.4 | 178.3 |
| 400 | 130.2 | 141.7 | 177.3 | 128.6 | 138.4 | 170.6 | 163.2 | 186.7 |
| 350 | 135.3 | 147.6 | 181.3 | 136.5 | 151.5 | 167.3 | 197.6 | 226.3 |
| 300 | | 213.1 | 675.6 | 200.2 | | 179.4 | 314.4 | 670.0 |
| LONG | -77.26 | -76.78 | -76.24 | -75.66 | -75.01 | -74.31 | -73.53 | -72.64 |
| LAT | 42.97 | 44.91 | 46.84 | 48.77 | 50.69 | 52.60 | 54.51 | 56.41 |
| QUAL | 33 | 33 | 32 | 33 | 33 | 33 | 32 | 32 |

PASS 3874 AT OTTAWA, 63 710

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 30755 | 30830 | 30905 | 30940 |
| 1000 | 0.093 | 0.109 | 0.110 | 0.124 |
| 950 | 0.102 | 0.121 | 0.122 | 0.137 |
| 900 | 0.116 | 0.137 | 0.136 | 0.152 |
| 850 | 0.133 | 0.156 | 0.154 | 0.175 |
| 800 | 0.160 | 0.179 | 0.177 | 0.205 |
| 750 | 0.195 | 0.211 | 0.205 | 0.242 |
| 700 | 0.235 | 0.252 | 0.241 | 0.286 |
| 650 | 0.280 | 0.307 | 0.289 | 0.336 |
| 600 | 0.331 | 0.377 | 0.355 | 0.410 |
| 550 | 0.424 | 0.463 | 0.454 | 0.523 |
| 500 | 0.543 | 0.606 | 0.595 | 0.663 |
| 450 | 0.696 | 0.794 | 0.786 | 0.882 |
| 400 | 0.897 | 1.037 | 1.038 | 1.159 |
| 350 | 1.148 | 1.359 | 1.363 | 1.484 |
| 300 | | | | 1.893 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 425.1 | 437.0 | 468.0 | 462.6 |
| 900 | 370.9 | 392.2 | 426.9 | 408.6 |
| 850 | 318.8 | 361.6 | 388.0 | 371.2 |
| 800 | 298.8 | 335.0 | 352.5 | 336.6 |
| 750 | 278.8 | 305.7 | 323.4 | 307.5 |
| 700 | 266.8 | 274.3 | 288.7 | 288.9 |
| 650 | 257.6 | 252.7 | 262.8 | 270.4 |
| 600 | 248.5 | 235.9 | 224.3 | 248.6 |
| 550 | 232.6 | 219.1 | 196.8 | 223.1 |
| 500 | 216.6 | 208.1 | 182.6 | 197.7 |
| 450 | 206.3 | 197.8 | 181.0 | 199.2 |
| 400 | 204.5 | 198.0 | 180.5 | 201.1 |
| 350 | 261.1 | 214.5 | 202.8 | 193.3 |
| 300 | | | | 1384.0 |
| LONG | -71.69 | -70.54 | -69.32 | -67.83 |
| LAT | 58.31 | 60.18 | 62.04 | 63.89 |
| QUAL | 33 | 33 | 33 | 32 |

PASS 3874 AT RESLUT, 63 710

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 31017 | 31115 | 31132 | 31148 | 31205 | 31225 | 31242 | 31259 |
| 1000 | 0.116 | 0.120 | 0.128 | 0.108 | 0.119 | 0.157 | 0.135 | 0.132 |
| 950 | 0.143 | 0.143 | 0.154 | 0.135 | 0.150 | 0.190 | 0.164 | 0.160 |
| 900 | 0.172 | 0.168 | 0.181 | 0.165 | 0.178 | 0.223 | 0.196 | 0.187 |
| 850 | 0.203 | 0.198 | 0.215 | 0.199 | 0.207 | 0.257 | 0.231 | 0.211 |
| 800 | 0.239 | 0.234 | 0.256 | 0.238 | 0.241 | 0.299 | 0.270 | 0.239 |
| 750 | 0.291 | 0.279 | 0.306 | 0.288 | 0.288 | 0.355 | 0.317 | 0.272 |
| 700 | 0.355 | 0.333 | 0.364 | 0.349 | 0.346 | 0.431 | 0.373 | 0.327 |
| 650 | 0.451 | 0.400 | 0.453 | 0.430 | 0.425 | 0.543 | 0.463 | 0.397 |
| 600 | 0.591 | 0.523 | 0.574 | 0.552 | 0.535 | 0.684 | 0.580 | 0.486 |
| 550 | 0.784 | 0.684 | 0.740 | 0.710 | 0.669 | 0.888 | 0.731 | 0.593 |
| 500 | 1.046 | 0.936 | 0.967 | 0.944 | 0.874 | 1.182 | 0.924 | 0.747 |
| 450 | 1.391 | 1.369 | 1.268 | 1.294 | 1.161 | 1.565 | 1.196 | 0.995 |
| 400 | | 1.892 | 1.661 | 1.755 | 1.545 | 2.016 | 1.549 | 1.332 |
| 350 | | 2.388 | 2.130 | | | | 1.960 | 1.739 |
| 300 | | | | | | | | 2.202 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 900 | 283.8 | 305.1 | 299.6 | 256.6 | 304.8 | 329.9 | 292.4 | 372.2 |
| 850 | 283.2 | 294.4 | 291.5 | 264.0 | 304.1 | 323.4 | 305.4 | 385.2 |
| 800 | 272.9 | 282.0 | 285.3 | 263.9 | 296.4 | 302.9 | 304.4 | 357.6 |
| 750 | 253.2 | 269.7 | 269.4 | 253.7 | 278.0 | 273.6 | 286.6 | 329.8 |
| 700 | 233.6 | 257.5 | 252.2 | 243.5 | 259.5 | 248.5 | 268.8 | 293.6 |
| 650 | 213.2 | 242.4 | 233.8 | 229.7 | 242.8 | 229.6 | 250.2 | 257.3 |
| 600 | 192.2 | 208.5 | 215.1 | 210.5 | 227.9 | 210.3 | 231.5 | 243.1 |
| 550 | 179.2 | 176.0 | 199.3 | 191.1 | 213.0 | 188.5 | 217.1 | 229.6 |
| 500 | 176.2 | 151.4 | 187.2 | 171.4 | 189.1 | 182.3 | 206.0 | 207.7 |
| 450 | 183.4 | 138.8 | 187.2 | 164.9 | 179.7 | 190.2 | 199.9 | 175.0 |
| 400 | | 185.9 | 183.5 | 154.8 | 187.4 | 212.5 | 204.5 | 183.2 |
| 350 | | 404.6 | 419.8 | | | | 193.9 | 200.9 |
| 300 | | | | | | | | 339.3 |
| LONG | -66.05 | -62.61 | -61.39 | -60.23 | -58.86 | -56.88 | -55.19 | -53.51 |
| LAT | 65.82 | 68.78 | 69.62 | 70.42 | 71.26 | 72.20 | 73.01 | 73.81 |
| QUAL | 33 | 32 | 32 | 32 | 33 | 32 | 32 | 32 |

PASS 3874 AT RESLUT, 63 710

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 31317 | 31334 | 31351 | 31408 | 31427 | 31443 | 31500 | 31520 |
| 1000 | 0.178 | 0.163 | 0.154 | 0.108 | 0.164 | 0.117 | 0.126 | 0.142 |
| 950 | 0.208 | 0.189 | 0.180 | 0.134 | 0.194 | 0.141 | 0.163 | 0.179 |
| 900 | 0.240 | 0.214 | 0.207 | 0.159 | 0.224 | 0.167 | 0.190 | 0.210 |
| 850 | 0.278 | 0.242 | 0.237 | 0.186 | 0.258 | 0.196 | 0.218 | 0.243 |
| 800 | 0.322 | 0.281 | 0.273 | 0.216 | 0.301 | 0.229 | 0.254 | 0.280 |
| 750 | 0.378 | 0.338 | 0.316 | 0.251 | 0.354 | 0.269 | 0.297 | 0.326 |
| 700 | 0.453 | 0.409 | 0.367 | 0.291 | 0.423 | 0.319 | 0.352 | 0.386 |
| 650 | 0.554 | 0.492 | 0.438 | 0.344 | 0.517 | 0.383 | 0.423 | 0.473 |
| 600 | 0.683 | 0.587 | 0.535 | 0.415 | 0.633 | 0.479 | 0.525 | 0.593 |
| 550 | 0.869 | 0.704 | 0.651 | 0.518 | 0.801 | 0.606 | 0.652 | 0.763 |
| 500 | 1.130 | 0.897 | 0.820 | 0.648 | 1.022 | 0.778 | 0.837 | 1.007 |
| 450 | 1.480 | 1.149 | 1.044 | 0.840 | 1.310 | 1.020 | 1.089 | 1.340 |
| 400 | 1.899 | 1.472 | 1.380 | 1.085 | 1.676 | 1.382 | 1.440 | 1.730 |
| 350 | 2.549 | 1.887 | 1.852 | 1.378 | 2.067 | 1.768 | 1.847 | 2.064 |
| 300 | | 2.540 | 2.435 | 1.724 | | | 2.335 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 900 | 342.9 | 381.4 | 360.7 | 304.0 | 342.3 | 299.7 | 327.4 | 324.0 |
| 850 | 335.7 | 350.4 | 347.9 | 318.6 | 329.7 | 307.5 | 334.6 | 336.4 |
| 800 | 328.8 | 322.1 | 334.0 | 326.9 | 312.1 | 307.5 | 323.5 | 332.7 |
| 750 | 289.2 | 296.6 | 319.8 | 322.8 | 290.8 | 299.7 | 311.4 | 315.4 |
| 700 | 264.6 | 273.3 | 305.7 | 318.7 | 271.1 | 278.4 | 279.9 | 266.8 |
| 650 | 249.5 | 266.5 | 286.8 | 282.2 | 254.2 | 244.4 | 254.3 | 236.2 |
| 600 | 232.9 | 259.7 | 265.1 | 245.2 | 237.3 | 229.4 | 239.2 | 218.3 |
| 550 | 205.6 | 248.6 | 243.4 | 230.7 | 219.7 | 216.4 | 224.1 | 198.6 |
| 500 | 194.3 | 217.1 | 218.9 | 216.2 | 205.8 | 198.0 | 203.1 | 180.4 |
| 450 | 195.2 | 205.4 | 195.9 | 206.5 | 204.6 | 178.4 | 189.3 | 187.2 |
| 400 | 187.8 | 202.6 | 178.3 | 205.1 | 219.2 | 185.0 | 192.1 | 228.1 |
| 350 | 545.2 | 180.7 | 178.8 | 217.5 | 454.9 | 169.6 | 202.7 | 526.3 |
| 300 | | 891.2 | 273.4 | 220.2 | | | 387.3 | |
| LONG | -51.05 | -48.68 | -46.32 | -43.48 | -39.72 | -36.55 | -33.18 | -27.73 |
| LAT | 74.59 | 75.32 | 76.05 | 76.73 | 77.41 | 77.99 | 78.60 | 79.09 |
| QUAL | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |

PASS 3874 AT RESLUT, 63 710

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 31534 | 31554 | 31612 | 31629 | 31646 | 31704 | 31722 | 31739 |
| 1000 | 0.130 | 0.169 | 0.171 | 0.179 | 0.157 | 0.150 | 0.203 | 0.223 |
| 950 | 0.159 | 0.198 | 0.200 | 0.206 | 0.185 | 0.171 | 0.227 | 0.255 |
| 900 | 0.186 | 0.226 | 0.227 | 0.231 | 0.210 | 0.196 | 0.257 | 0.289 |
| 850 | 0.214 | 0.256 | 0.257 | 0.259 | 0.235 | 0.226 | 0.294 | 0.330 |
| 800 | 0.247 | 0.292 | 0.293 | 0.296 | 0.270 | 0.258 | 0.338 | 0.375 |
| 750 | 0.293 | 0.335 | 0.336 | 0.343 | 0.312 | 0.293 | 0.388 | 0.425 |
| 700 | 0.348 | 0.389 | 0.387 | 0.401 | 0.364 | 0.342 | 0.458 | 0.488 |
| 650 | 0.418 | 0.464 | 0.455 | 0.489 | 0.429 | 0.403 | 0.549 | 0.563 |
| 600 | 0.523 | 0.566 | 0.561 | 0.604 | 0.521 | 0.491 | 0.659 | 0.649 |
| 550 | 0.658 | 0.693 | 0.698 | 0.763 | 0.636 | 0.600 | 0.850 | 0.799 |
| 500 | 0.854 | 0.883 | 0.925 | 0.974 | 0.817 | 0.753 | 1.110 | 0.997 |
| 450 | 1.119 | 1.138 | 1.232 | 1.262 | 1.067 | 0.966 | 1.463 | 1.276 |
| 400 | 1.467 | 1.484 | 1.645 | 1.608 | 1.390 | 1.280 | 1.904 | 1.626 |
| 350 | 1.821 | 1.852 | 2.182 | | 1.763 | 1.683 | 2.392 | 2.019 |
| 300 | | 2.210 | | | 2.241 | 2.199 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 288.6 | 344.7 | 347.7 | 390.9 | 358.4 | 389.5 | 421.8 | 385.4 |
| 900 | 329.3 | 375.3 | 383.2 | 413.7 | 395.8 | 366.7 | 391.5 | 384.9 |
| 850 | 329.5 | 380.2 | 387.1 | 399.3 | 385.1 | 363.7 | 369.3 | 391.1 |
| 800 | 320.6 | 369.7 | 373.0 | 364.3 | 364.2 | 359.2 | 345.9 | 382.2 |
| 750 | 303.6 | 354.2 | 350.0 | 323.0 | 342.4 | 354.7 | 322.3 | 362.7 |
| 700 | 275.5 | 299.4 | 316.3 | 279.7 | 309.5 | 314.6 | 297.1 | 343.4 |
| 650 | 244.6 | 274.1 | 282.5 | 258.6 | 279.8 | 276.1 | 271.2 | 324.0 |
| 600 | 229.8 | 257.1 | 248.5 | 237.5 | 257.2 | 258.9 | 244.9 | 304.7 |
| 550 | 214.9 | 240.1 | 214.7 | 218.5 | 234.6 | 241.7 | 208.1 | 264.9 |
| 500 | 196.6 | 211.8 | 185.1 | 201.8 | 209.1 | 219.6 | 188.0 | 221.1 |
| 450 | 187.0 | 201.0 | 175.8 | 204.5 | 192.4 | 193.2 | 187.5 | 213.1 |
| 400 | 224.1 | 210.1 | 174.0 | 153.9 | 202.8 | 186.6 | 207.0 | 223.7 |
| 350 | 560.1 | 251.6 | 348.3 | | 209.9 | 187.0 | 425.8 | 225.6 |
| 300 | | 655.2 | | | 264.4 | 372.2 | | |
| LONG | -23.92 | -18.47 | -12.89 | -7.30 | -1.71 | 4.18 | 9.94 | 15.38 |
| LAT | 79.43 | 79.91 | 80.15 | 80.27 | 80.40 | 80.45 | 80.24 | 80.03 |
| QUAL | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 |

PASS 3874 AT RESLUT, 63 710

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 31756 | 31815 | 31832 | 31849 | 31907 | 31925 | 31942 | 32000 |
| 1000 | 0.194 | 0.202 | 0.226 | 0.228 | 0.217 | 0.196 | 0.188 | 0.153 |
| 950 | 0.220 | 0.232 | 0.256 | 0.255 | 0.244 | 0.228 | 0.217 | 0.185 |
| 900 | 0.245 | 0.265 | 0.293 | 0.285 | 0.275 | 0.261 | 0.249 | 0.214 |
| 850 | 0.273 | 0.303 | 0.336 | 0.319 | 0.310 | 0.296 | 0.286 | 0.248 |
| 800 | 0.309 | 0.346 | 0.381 | 0.362 | 0.349 | 0.341 | 0.328 | 0.288 |
| 750 | 0.356 | 0.397 | 0.429 | 0.412 | 0.394 | 0.403 | 0.379 | 0.341 |
| 700 | 0.407 | 0.464 | 0.492 | 0.474 | 0.453 | 0.485 | 0.450 | 0.405 |
| 650 | 0.476 | 0.552 | 0.566 | 0.544 | 0.523 | 0.592 | 0.555 | 0.498 |
| 600 | 0.568 | 0.661 | 0.651 | 0.645 | 0.630 | 0.724 | 0.690 | 0.626 |
| 550 | 0.685 | 0.824 | 0.790 | 0.783 | 0.762 | 0.921 | 0.872 | 0.792 |
| 500 | 0.859 | 1.037 | 0.979 | 0.955 | | 1.184 | 1.106 | 1.020 |
| 450 | 1.092 | 1.341 | 1.269 | 1.194 | | 1.517 | 1.411 | 1.362 |
| 400 | 1.435 | 1.731 | 1.623 | 1.492 | | 1.848 | 1.767 | 1.806 |
| 350 | 1.816 | | 2.056 | 1.848 | | | 2.186 | 2.334 |
| 300 | 2.157 | | | 2.126 | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 452.8 | 370.4 | 376.7 | 447.7 | 416.5 | | | |
| 900 | 443.7 | 374.0 | 373.6 | 433.8 | 415.1 | 365.2 | 359.4 | 327.1 |
| 850 | 422.7 | 371.4 | 393.4 | 414.5 | 413.4 | 353.1 | 360.6 | 327.6 |
| 800 | 397.7 | 357.1 | 387.1 | 395.1 | 400.2 | 328.5 | 352.9 | 317.3 |
| 750 | 366.5 | 333.0 | 371.9 | 375.5 | 379.3 | 289.6 | 306.9 | 292.5 |
| 700 | 330.0 | 309.3 | 353.5 | 347.7 | 344.6 | 265.6 | 270.6 | 255.5 |
| 650 | 304.1 | 285.6 | 335.1 | 320.0 | 309.1 | 251.6 | 252.9 | 238.9 |
| 600 | 280.8 | 261.4 | 316.7 | 294.3 | 263.5 | 236.7 | 235.3 | 227.5 |
| 550 | 256.6 | 233.9 | 273.0 | 269.5 | 218.0 | 210.4 | 218.1 | 213.0 |
| 500 | 226.5 | 210.9 | 220.3 | 247.0 | | 206.7 | 212.5 | 187.1 |
| 450 | 204.8 | 197.7 | 209.7 | 234.7 | | 230.8 | 218.0 | 181.3 |
| 400 | 201.0 | 212.7 | 210.8 | 236.7 | | 351.3 | 221.6 | 187.9 |
| 350 | 250.3 | | 278.8 | 302.0 | | | 463.3 | 242.0 |
| 300 | 442.9 | | | 636.4 | | | | |
| LONG | 20.82 | 25.90 | 30.20 | 34.51 | 38.56 | 41.82 | 44.90 | 48.16 |
| LAT | 79.83 | 79.36 | 78.88 | 78.41 | 77.83 | 77.15 | 76.50 | 75.81 |
| QUAL | 32 | 32 | 32 | 32 | 33 | 32 | 32 | 32 |

PASS 3894 AT FTMYRS, 63 711

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 144305 | 144339 | 144415 | 144432 | 144507 | 144542 | 144617 | 144735 |
| 1000 | 0.097 | 0.093 | 0.102 | 0.094 | 0.103 | 0.103 | 0.113 | 0.117 |
| 950 | 0.111 | 0.106 | 0.115 | 0.107 | 0.119 | 0.116 | 0.128 | 0.129 |
| 900 | 0.128 | 0.120 | 0.132 | 0.123 | 0.136 | 0.133 | 0.145 | 0.145 |
| 850 | 0.147 | 0.138 | 0.150 | 0.142 | 0.157 | 0.151 | 0.165 | 0.163 |
| 800 | 0.170 | 0.160 | 0.175 | 0.165 | 0.182 | 0.175 | 0.190 | 0.190 |
| 750 | 0.199 | 0.187 | 0.204 | 0.193 | 0.212 | 0.204 | 0.221 | 0.223 |
| 700 | 0.235 | 0.220 | 0.240 | 0.227 | 0.249 | 0.239 | 0.258 | 0.264 |
| 650 | 0.282 | 0.258 | 0.286 | 0.268 | 0.293 | 0.286 | 0.307 | 0.313 |
| 600 | 0.338 | 0.313 | 0.340 | 0.323 | 0.354 | 0.343 | 0.366 | 0.371 |
| 550 | 0.420 | 0.383 | 0.425 | 0.400 | 0.433 | 0.428 | 0.456 | 0.462 |
| 500 | 0.532 | 0.490 | 0.545 | 0.528 | 0.560 | 0.548 | 0.582 | 0.605 |
| 450 | 0.725 | 0.638 | 0.739 | 0.724 | 0.740 | 0.737 | 0.784 | 0.825 |
| 400 | 1.012 | 0.876 | 1.016 | 0.993 | 1.037 | 1.033 | 1.106 | 1.166 |
| 350 | 1.431 | 1.216 | 1.398 | 1.379 | 1.463 | 1.470 | 1.574 | 1.650 |
| 300 | | 1.683 | 1.888 | 1.871 | 2.021 | 2.096 | 2.222 | 2.329 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 357.8 | 382.7 | 377.5 | 359.9 | 355.2 | 384.9 | 401.7 | 445.5 |
| 900 | 350.8 | 367.3 | 363.5 | 353.0 | 349.4 | 369.2 | 381.0 | 409.4 |
| 850 | 343.2 | 349.9 | 349.4 | 341.0 | 341.7 | 352.7 | 365.0 | 373.3 |
| 800 | 326.2 | 331.3 | 334.1 | 326.2 | 331.2 | 337.1 | 346.8 | 346.8 |
| 750 | 308.7 | 315.6 | 318.6 | 314.5 | 319.5 | 321.8 | 327.6 | 321.5 |
| 700 | 291.5 | 301.8 | 301.7 | 304.0 | 304.1 | 306.5 | 307.5 | 299.5 |
| 650 | 274.6 | 288.0 | 280.9 | 286.9 | 288.7 | 279.4 | 282.3 | 284.0 |
| 600 | 257.6 | 260.1 | 260.2 | 257.9 | 256.4 | 251.5 | 257.1 | 268.5 |
| 550 | 228.0 | 228.7 | 223.1 | 205.2 | 223.1 | 222.8 | 227.9 | 206.2 |
| 500 | 191.3 | 203.4 | 188.0 | 175.5 | 196.7 | 193.6 | 197.1 | 177.9 |
| 450 | 166.3 | 180.1 | 161.7 | 161.5 | 170.6 | 168.6 | 162.6 | 157.3 |
| 400 | 149.3 | 161.4 | 158.2 | 157.0 | 148.3 | 148.2 | 142.4 | 145.5 |
| 350 | 142.4 | 155.0 | 163.9 | 160.2 | 152.2 | 143.0 | 143.6 | 145.1 |
| 300 | | 158.0 | 169.6 | 174.5 | 163.1 | 150.9 | 164.8 | 161.3 |
| LONG | -91.14 | -90.81 | -90.48 | -90.33 | -90.04 | -89.76 | -89.50 | -88.96 |
| LAT | 36.15 | 34.26 | 32.25 | 31.31 | 29.36 | 27.40 | 25.45 | 21.08 |
| QUAL | 13 | 12 | 13 | 13 | 13 | 13 | 23 | 22 |

PASS 3894 AT FTMYRS, 63 711

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 144810 | 144846 | 144939 | 145014 | 145049 | 145141 | 145159 | 145234 |
| 1000 | 0.135 | 0.185 | 0.184 | 0.200 | 0.197 | 0.210 | 0.222 | 0.215 |
| 950 | 0.148 | 0.207 | 0.208 | 0.226 | 0.219 | 0.232 | 0.246 | 0.238 |
| 900 | 0.164 | 0.233 | 0.234 | 0.256 | 0.244 | 0.259 | 0.270 | 0.265 |
| 850 | 0.184 | 0.265 | 0.264 | 0.289 | 0.275 | 0.293 | 0.297 | 0.299 |
| 800 | 0.212 | 0.302 | 0.300 | 0.326 | 0.311 | 0.331 | 0.338 | 0.340 |
| 750 | 0.251 | 0.345 | 0.344 | 0.368 | 0.354 | 0.375 | 0.394 | 0.389 |
| 700 | 0.298 | 0.402 | 0.397 | 0.420 | 0.413 | 0.440 | 0.459 | 0.461 |
| 650 | 0.353 | 0.470 | 0.466 | 0.494 | 0.485 | 0.523 | 0.533 | 0.552 |
| 600 | 0.418 | 0.573 | 0.569 | 0.611 | 0.586 | 0.654 | 0.661 | 0.700 |
| 550 | 0.523 | 0.720 | 0.728 | 0.783 | 0.734 | 0.832 | 0.856 | 0.905 |
| 500 | 0.691 | 0.933 | 0.954 | 1.036 | 0.951 | 1.128 | 1.170 | 1.278 |
| 450 | 0.944 | 1.264 | 1.297 | 1.423 | 1.328 | 1.668 | 1.718 | 1.887 |
| 400 | 1.314 | 1.783 | 1.864 | 2.023 | 1.916 | 2.520 | 2.692 | 2.954 |
| 350 | 1.836 | 2.491 | 2.775 | 2.884 | 2.824 | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 490.0 | 424.3 | 417.2 | 402.3 | 454.5 | 463.4 | 512.9 | 462.0 |
| 900 | 446.4 | 402.1 | 410.7 | 408.1 | 434.8 | 431.9 | 488.4 | 432.1 |
| 850 | 402.8 | 393.1 | 397.9 | 413.3 | 416.3 | 412.3 | 448.4 | 412.3 |
| 800 | 362.2 | 375.0 | 381.8 | 407.5 | 383.9 | 382.5 | 390.3 | 378.5 |
| 750 | 324.3 | 344.2 | 363.5 | 388.0 | 346.3 | 351.0 | 329.5 | 323.0 |
| 700 | 294.8 | 314.8 | 329.3 | 341.5 | 318.0 | 308.0 | 303.4 | 286.8 |
| 650 | 281.5 | 285.5 | 276.5 | 271.1 | 289.7 | 264.9 | 277.3 | 250.6 |
| 600 | 261.4 | 253.4 | 233.4 | 229.7 | 257.3 | 229.9 | 235.7 | 214.4 |
| 550 | 203.1 | 219.7 | 207.8 | 201.3 | 220.4 | 196.9 | 186.4 | 177.2 |
| 500 | 173.4 | 184.8 | 180.1 | 173.6 | 179.1 | 148.2 | 147.1 | 138.3 |
| 450 | 159.0 | 157.4 | 152.7 | 151.7 | 144.8 | 124.1 | 121.7 | 121.8 |
| 400 | 152.8 | 148.3 | 130.3 | 139.3 | 130.8 | 122.4 | 124.0 | 109.8 |
| 350 | 155.7 | 151.8 | 132.3 | 157.8 | 141.8 | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -88.73 | -88.51 | -88.19 | -87.99 | -87.79 | -87.51 | -87.42 | -87.23 |
| LAT. | 19.12 | 17.10 | 14.12 | 12.15 | 10.18 | 7.25 | 6.24 | 4.27 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 33 | 33 | 33 |

PASS 3894 AT FTMYRS, 63 711

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 145309 | 145344 | 145419 | 145437 |
| 1000 | 0.198 | 0.216 | 0.222 | 0.217 |
| 950 | 0.227 | 0.249 | 0.250 | 0.241 |
| 900 | 0.257 | 0.282 | 0.276 | 0.268 |
| 850 | 0.290 | 0.318 | 0.305 | 0.300 |
| 800 | 0.330 | 0.360 | 0.346 | 0.339 |
| 750 | 0.387 | 0.413 | 0.401 | 0.391 |
| 700 | 0.459 | 0.483 | 0.465 | 0.461 |
| 650 | 0.545 | 0.569 | 0.562 | 0.546 |
| 600 | 0.691 | 0.732 | 0.725 | 0.698 |
| 550 | 0.893 | 0.991 | 0.979 | 0.927 |
| 500 | 1.262 | 1.401 | 1.457 | 1.407 |
| 450 | 1.944 | 2.336 | 2.483 | |
| 400 | | 3.944 | 4.263 | |
| 350 | | | | |
| 300 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | |
|---|---|---|---|---|
| 950 | | | 466.2 | 462.6 |
| 900 | 398.3 | 401.3 | 466.0 | 443.1 |
| 850 | 383.5 | 402.4 | 438.7 | 424.2 |
| 800 | 351.4 | 375.9 | 388.7 | 385.3 |
| 750 | 295.1 | 335.7 | 338.3 | 319.6 |
| 700 | 278.8 | 304.5 | 304.0 | 287.2 |
| 650 | 262.6 | 273.3 | 222.4 | 254.7 |
| 600 | 203.1 | 178.5 | 191.4 | 209.1 |
| 550 | 173.3 | 159.1 | 154.4 | 158.2 |
| 500 | 126.8 | 121.6 | 111.3 | 103.5 |
| 450 | 96.1 | 92.8 | 89.6 | |
| 400 | | 116.8 | 113.3 | |
| 350 | | | | |
| 300 | | | | |

| | | | | |
|---|---|---|---|---|
| LONG | -87.04 | -86.86 | -86.68 | -86.59 |
| LAT | 2.30 | 0.34 | -1.63 | -2.64 |
| QUAL | 33 | 33 | 33 | 33 |

PASS 3894 AT AGASTA, 63 711

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 145910 | 145945 | 150020 | 150054 | 150130 | 150205 | 150240 | 150305 |
| 1000 | 0.158 | 0.147 | 0.145 | 0.121 | 0.098 | 0.113 | 0.116 | 0.117 |
| 950 | 0.173 | 0.162 | 0.161 | 0.138 | 0.110 | 0.127 | 0.124 | 0.126 |
| 900 | 0.190 | 0.180 | 0.179 | 0.152 | 0.119 | 0.140 | 0.136 | 0.130 |
| 850 | 0.210 | 0.201 | 0.198 | 0.167 | 0.129 | 0.150 | 0.147 | 0.142 |
| 800 | 0.234 | 0.225 | 0.222 | 0.185 | 0.141 | 0.164 | 0.160 | 0.151 |
| 750 | 0.264 | 0.253 | 0.250 | 0.205 | 0.155 | 0.182 | 0.176 | 0.164 |
| 700 | 0.299 | 0.286 | 0.282 | 0.229 | 0.175 | 0.202 | 0.194 | 0.184 |
| 650 | 0.346 | 0.325 | 0.322 | 0.261 | 0.200 | 0.231 | 0.216 | 0.204 |
| 600 | 0.411 | 0.380 | 0.378 | 0.308 | 0.234 | 0.270 | 0.242 | 0.228 |
| 550 | 0.502 | 0.458 | 0.461 | 0.371 | 0.281 | 0.325 | 0.288 | 0.267 |
| 500 | 0.658 | 0.584 | 0.585 | 0.470 | 0.352 | 0.401 | 0.353 | 0.338 |
| 450 | 0.974 | 0.805 | 0.826 | 0.632 | 0.466 | 0.529 | 0.449 | 0.446 |
| 400 | 1.703 | 1.237 | 1.284 | 0.945 | 0.652 | 0.761 | 0.635 | 0.620 |
| 350 | 2.971 | 2.238 | 2.182 | 1.591 | 1.013 | 1.142 | 0.948 | 0.907 |
| 300 | | 3.788 | 3.740 | 2.877 | 1.731 | 1.835 | 1.487 | 1.355 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 534.4 | 481.5 | 470.3 | 469.0 | 563.2 | 478.4 | 612.3 | 1067.4 |
| 900 | 507.3 | 463.1 | 469.2 | 516.2 | 610.4 | 668.2 | 593.6 | 1009.8 |
| 850 | 475.0 | 449.0 | 455.0 | 505.7 | 561.5 | 617.0 | 591.7 | 627.8 |
| 800 | 439.2 | 438.5 | 437.5 | 479.7 | 523.3 | 544.6 | 565.1 | 642.2 |
| 750 | 408.4 | 422.8 | 418.9 | 461.3 | 485.1 | 467.8 | 515.2 | 566.3 |
| 700 | 373.5 | 399.3 | 397.6 | 418.2 | 406.4 | 413.9 | 465.5 | 457.4 |
| 650 | 319.3 | 349.3 | 342.8 | 332.9 | 338.6 | 357.5 | 419.9 | 418.2 |
| 600 | 273.2 | 301.9 | 280.4 | 292.2 | 298.5 | 301.0 | 374.3 | 378.9 |
| 550 | 227.2 | 242.2 | 245.2 | 249.2 | 256.1 | 261.4 | 302.4 | 283.6 |
| 500 | 157.5 | 179.6 | 185.2 | 200.0 | 210.6 | 217.9 | 229.1 | 198.1 |
| 450 | 113.1 | 140.0 | 135.3 | 149.1 | 171.3 | 161.1 | 181.2 | 168.5 |
| 400 | 89.0 | 101.6 | 107.9 | 116.4 | 136.1 | 128.2 | 134.0 | 141.5 |
| 350 | 95.0 | 85.8 | 92.1 | 87.0 | 106.3 | 120.1 | 120.0 | 132.9 |
| 300 | | 101.7 | 100.6 | 87.5 | 89.2 | 96.8 | 104.8 | 121.1 |
| LONG | -85.06 | -84.83 | -84.60 | -84.37 | -84.11 | -83.85 | -83.56 | -83.35 |
| LAT | -17.99 | -19.95 | -21.91 | -23.81 | -25.83 | -27.79 | -29.74 | -31.14 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3901 AT OTTAWA, 63 712

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 23033 | 23108 | 23143 | 23200 | 23236 | 23311 | 23346 | 23421 |
| 1000 | 0.035 | 0.051 | 0.029 | 0.037 | 0.051 | 0.047 | 0.044 | 0.024 |
| 950 | 0.039 | 0.053 | 0.034 | 0.042 | 0.057 | 0.054 | 0.054 | 0.032 |
| 900 | 0.043 | 0.061 | 0.040 | 0.048 | 0.064 | 0.062 | 0.061 | 0.040 |
| 850 | 0.049 | 0.076 | 0.048 | 0.058 | 0.073 | 0.073 | 0.070 | 0.048 |
| 800 | 0.055 | 0.094 | 0.058 | 0.069 | 0.085 | 0.086 | 0.084 | 0.060 |
| 750 | 0.063 | 0.113 | 0.071 | 0.082 | 0.100 | 0.103 | 0.100 | 0.076 |
| 700 | 0.073 | 0.134 | 0.086 | 0.097 | 0.120 | 0.125 | 0.120 | 0.095 |
| 650 | 0.090 | 0.171 | 0.108 | 0.125 | 0.147 | 0.150 | 0.143 | 0.122 |
| 600 | 0.113 | 0.224 | 0.138 | 0.162 | 0.188 | 0.192 | 0.191 | 0.155 |
| 550 | 0.143 | 0.289 | 0.186 | 0.207 | 0.250 | 0.270 | 0.262 | 0.194 |
| 500 | 0.196 | 0.384 | 0.270 | 0.303 | 0.368 | 0.369 | 0.350 | 0.290 |
| 450 | 0.274 | 0.683 | 0.421 | 0.438 | 0.553 | 0.525 | 0.510 | 0.452 |
| 400 | 0.367 | 1.080 | 0.698 | 0.714 | 0.817 | 0.753 | 0.726 | 0.672 |
| 350 | 0.643 | 1.593 | 1.141 | 1.155 | 1.276 | 1.116 | 1.086 | 1.005 |
| 300 | 1.019 | | | | | 1.685 | 1.596 | 1.470 |
| **HEIGHT** | **SCALE HEIGHT, KM** | | | | | | | |
| 950 | 428.3 | 670.7 | 326.7 | 391.5 | 564.4 | 366.9 | | |
| 900 | 448.3 | 486.8 | 308.9 | 355.4 | 409.9 | 332.0 | 352.2 | 215.1 |
| 850 | 412.5 | 318.2 | 287.9 | 308.2 | 356.4 | 310.9 | 327.1 | 231.9 |
| 800 | 374.9 | 259.3 | 267.3 | 281.4 | 321.7 | 290.7 | 298.5 | 226.3 |
| 750 | 333.5 | 246.0 | 252.7 | 263.5 | 290.1 | 270.1 | 273.7 | 218.4 |
| 700 | 292.1 | 236.8 | 238.0 | 245.7 | 259.2 | 249.0 | 250.7 | 209.6 |
| 650 | 261.0 | 219.3 | 215.2 | 222.6 | 228.8 | 227.8 | 227.7 | 198.6 |
| 600 | 230.6 | 197.3 | 189.8 | 199.0 | 196.2 | 206.2 | 205.1 | 188.0 |
| 550 | 200.2 | 176.3 | 152.8 | 175.3 | 152.0 | 185.9 | 182.5 | 177.1 |
| 500 | 175.5 | 153.9 | 127.4 | 150.3 | 120.3 | 161.6 | 159.9 | 160.4 |
| 450 | 152.8 | 129.4 | 108.1 | 125.0 | 126.5 | 140.9 | 147.9 | 140.3 |
| 400 | 131.5 | 117.2 | 104.4 | 112.1 | 123.1 | 137.1 | 137.3 | 126.7 |
| 350 | 117.5 | 130.5 | 117.7 | 104.1 | 112.4 | 132.0 | 136.0 | 131.0 |
| 300 | 116.4 | | | | | 143.1 | 145.6 | 187.6 |
| LONG | -74.82 | -74.45 | -74.03 | -73.83 | -73.55 | -72.86 | -72.31 | -71.71 |
| LAT | 36.63 | 38.58 | 40.52 | 41.47 | 43.46 | 45.40 | 47.33 | 49.25 |
| QUAL | 22 | 23 | 23 | 23 | 23 | 25 | 25 | 22 |

PASS 3901 AT OTTAWA, 63 712

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 23456 | 23531 | 23606 | 23641 | 23716 | 23751 | 23844 |
| 1000 | 0.042 | 0.060 | 0.096 | 0.084 | 0.090 | 0.093 | 0.100 |
| 950 | 0.050 | 0.070 | 0.106 | 0.097 | 0.100 | 0.104 | 0.111 |
| 900 | 0.060 | 0.085 | 0.121 | 0.112 | 0.114 | 0.120 | 0.127 |
| 850 | 0.073 | 0.105 | 0.141 | 0.130 | 0.132 | 0.141 | 0.148 |
| 800 | 0.089 | 0.132 | 0.164 | 0.154 | 0.153 | 0.167 | 0.173 |
| 750 | 0.113 | 0.165 | 0.191 | 0.183 | 0.179 | 0.199 | 0.204 |
| 700 | 0.143 | 0.208 | 0.225 | 0.222 | 0.210 | 0.239 | 0.240 |
| 650 | 0.180 | 0.260 | 0.265 | 0.270 | 0.247 | 0.293 | 0.282 |
| 600 | 0.223 | 0.321 | 0.326 | 0.327 | 0.308 | 0.355 | 0.337 |
| 550 | 0.273 | 0.420 | 0.439 | 0.393 | 0.398 | 0.428 | 0.456 |
| 500 | 0.425 | 0.580 | 0.585 | 0.528 | 0.510 | 0.533 | 0.576 |
| 450 | 0.638 | 0.780 | 0.772 | 0.730 | 0.673 | 0.755 | 0.773 |
| 400 | 0.928 | 1.096 | 1.028 | 0.995 | 0.898 | 1.031 | 1.040 |
| 350 | 1.322 | 1.514 | 1.321 | 1.325 | 1.225 | 1.404 | 1.415 |
| 300 | 1.822 | | 1.621 | 1.671 | 1.655 | 1.881 | 2.005 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 300.8 | 319.9 | 506.0 | 347.0 | 423.8 | 393.3 | 432.6 |
| 900 | 273.4 | 297.4 | 394.8 | 331.7 | 376.9 | 347.9 | 362.9 |
| 850 | 247.1 | 239.3 | 391.1 | 314.1 | 351.4 | 312.7 | 346.6 |
| 800 | 221.6 | 238.8 | 331.7 | 293.2 | 337.2 | 295.3 | 330.3 |
| 750 | 213.6 | 226.3 | 310.3 | 272.4 | 321.7 | 278.0 | 309.4 |
| 700 | 208.4 | 219.2 | 284.7 | 260.4 | 291.4 | 264.0 | 283.2 |
| 650 | 203.1 | 212.0 | 259.2 | 249.3 | 261.2 | 252.7 | 257.5 |
| 600 | 197.9 | 204.7 | 233.9 | 238.2 | 239.6 | 241.4 | 239.0 |
| 550 | 192.6 | 198.3 | 217.3 | 227.0 | 221.5 | 230.1 | 220.4 |
| 500 | 170.3 | 177.9 | 198.8 | 202.2 | 203.4 | 215.5 | 201.8 |
| 450 | 144.6 | 162.4 | 188.7 | 170.9 | 186.1 | 189.4 | 186.1 |
| 400 | 139.2 | 152.6 | 202.8 | 178.3 | 169.5 | 163.3 | 171.3 |
| 350 | 150.7 | 154.2 | 226.4 | 201.1 | 169.9 | 168.8 | 176.5 |
| 300 | 161.2 | | 263.7 | 239.0 | 177.2 | 351.9 | 216.8 |
| LONG | -71.07 | -70.32 | -69.53 | -68.62 | -67.60 | -66.47 | -64.41 |
| LAT | 51.18 | 53.09 | 54.99 | 56.89 | 58.78 | 60.66 | 63.46 |
| QUAL | 23 | 33 | 23 | 22 | 33 | 22 | 22 |

PASS 3701 AT RESLUT, 65 712

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 24009 | 24027 | 24043 | 24101 | 24119 | 24151 | 24213 |
| 1000 | 0.102 | 0.075 | 0.072 | 0.064 | 0.087 | 0.076 | 0.080 |
| 950 | 0.123 | 0.093 | 0.089 | 0.077 | 0.102 | 0.091 | 0.096 |
| 900 | 0.145 | 0.113 | 0.107 | 0.093 | 0.122 | 0.106 | 0.113 |
| 850 | 0.170 | 0.135 | 0.127 | 0.112 | 0.146 | 0.125 | 0.133 |
| 800 | 0.199 | 0.160 | 0.151 | 0.134 | 0.173 | 0.148 | 0.156 |
| 750 | 0.237 | 0.190 | 0.181 | 0.157 | 0.205 | 0.175 | 0.192 |
| 700 | 0.289 | 0.230 | 0.220 | 0.187 | 0.246 | 0.208 | 0.234 |
| 650 | 0.364 | 0.285 | 0.272 | 0.229 | 0.305 | 0.249 | 0.291 |
| 600 | 0.447 | 0.352 | 0.335 | 0.284 | 0.379 | 0.305 | 0.360 |
| 550 | 0.592 | 0.461 | 0.420 | 0.353 | 0.495 | 0.377 | 0.469 |
| 500 | 0.798 | 0.610 | 0.545 | 0.465 | 0.652 | 0.490 | 0.625 |
| 450 | 1.100 | 0.831 | 0.720 | 0.620 | 0.895 | 0.642 | 0.875 |
| 400 | | 1.142 | 0.967 | 0.839 | 1.233 | 0.878 | 1.246 |
| 350 | | | 1.304 | 1.134 | 1.697 | 1.221 | |
| 300 | | | | 1.503 | | 1.638 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 900 | 301.6 | 266.7 | 273.1 | 267.3 | 283.6 | 304.2 | 294.0 |
| 850 | 306.8 | 281.2 | 279.6 | 281.2 | 286.3 | 301.0 | 287.6 |
| 800 | 299.9 | 281.9 | 272.3 | 289.4 | 280.8 | 298.3 | 277.8 |
| 750 | 258.5 | 265.8 | 260.2 | 296.2 | 270.1 | 295.7 | 259.7 |
| 700 | 244.6 | 249.8 | 249.7 | 259.4 | 255.2 | 262.4 | 242.2 |
| 650 | 230.7 | 233.9 | 240.7 | 240.1 | 236.0 | 257.0 | 227.6 |
| 600 | 211.9 | 218.0 | 231.7 | 227.1 | 216.7 | 237.4 | 213.0 |
| 550 | 184.9 | 198.7 | 217.4 | 214.0 | 196.2 | 217.7 | 191.7 |
| 500 | 164.6 | 178.2 | 194.2 | 196.8 | 175.4 | 198.5 | 167.4 |
| 450 | 155.8 | 163.8 | 178.7 | 178.2 | 159.6 | 179.2 | 147.5 |
| 400 | | 156.0 | 170.1 | 169.7 | 158.1 | 160.5 | 145.9 |
| 350 | | | 156.3 | 171.1 | 183.5 | 164.1 | |
| 300 | | | | 169.5 | | 197.3 | |
| LONG | -60.03 | -58.80 | -57.71 | -56.46 | -54.79 | -51.82 | -49.31 |
| LAT | 67.86 | 68.76 | 69.57 | 70.47 | 71.33 | 72.86 | 73.86 |
| QUAL | 33 | 33 | 33 | 32 | 32 | 33 | 33 |

PASS 3901 AT RESLUT, 63 712

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 24229 | 24257 | 24305 | 24321 | 24339 | 24357 | 24415 | 24432 |
| 1000 | 0.059 | 0.059 | 0.066 | 0.080 | 0.083 | 0.084 | 0.108 | 0.150 |
| 950 | 0.075 | 0.071 | 0.080 | 0.097 | 0.099 | 0.103 | 0.130 | 0.181 |
| 900 | 0.092 | 0.084 | 0.096 | 0.116 | 0.119 | 0.121 | 0.151 | 0.209 |
| 850 | 0.109 | 0.099 | 0.114 | 0.140 | 0.144 | 0.141 | 0.175 | 0.241 |
| 800 | 0.131 | 0.118 | 0.135 | 0.167 | 0.173 | 0.168 | 0.204 | 0.278 |
| 750 | 0.158 | 0.140 | 0.159 | 0.199 | 0.206 | 0.199 | 0.244 | 0.333 |
| 700 | 0.191 | 0.168 | 0.188 | 0.241 | 0.248 | 0.242 | 0.296 | 0.400 |
| 650 | 0.244 | 0.201 | 0.229 | 0.299 | 0.306 | 0.297 | 0.359 | 0.490 |
| 600 | 0.310 | 0.251 | 0.284 | 0.369 | 0.376 | 0.364 | 0.463 | 0.602 |
| 550 | 0.392 | 0.321 | 0.353 | 0.490 | 0.491 | 0.457 | 0.623 | 0.761 |
| 500 | 0.532 | 0.412 | 0.464 | 0.659 | 0.653 | 0.602 | 0.848 | 1.005 |
| 450 | 0.722 | 0.564 | 0.618 | 0.946 | 0.916 | 0.804 | 1.188 | 1.359 |
| 400 | 1.058 | 0.790 | 0.879 | 1.362 | 1.286 | 1.110 | 1.714 | 1.831 |
| 350 | 1.529 | 1.146 | 1.232 | 1.827 | 1.726 | 1.512 | | 2.383 |
| 300 | | 1.640 | | | | | | |
| | | | | | | | | |
| 900 | 258.5 | 295.1 | 280.7 | 269.7 | 267.6 | 296.4 | 323.7 | 340.7 |
| 850 | 266.8 | 293.8 | 294.0 | 276.9 | 273.8 | 301.0 | 325.9 | 326.8 |
| 800 | 259.8 | 286.3 | 297.5 | 274.4 | 271.8 | 283.5 | 295.0 | 310.2 |
| 750 | 249.0 | 275.9 | 302.0 | 262.5 | 265.9 | 268.8 | 260.8 | 288.1 |
| 700 | 238.3 | 263.0 | 285.4 | 247.6 | 254.2 | 255.7 | 245.3 | 266.0 |
| 650 | 224.0 | 250.2 | 243.4 | 229.9 | 237.0 | 244.1 | 229.7 | 247.5 |
| 600 | 209.7 | 230.7 | 229.4 | 212.2 | 219.8 | 232.5 | 206.9 | 229.7 |
| 550 | 194.7 | 208.5 | 213.5 | 186.3 | 195.0 | 215.7 | 178.8 | 205.3 |
| 500 | 173.9 | 186.3 | 191.9 | 158.1 | 167.7 | 189.9 | 156.9 | 174.7 |
| 450 | 151.6 | 163.9 | 164.2 | 138.1 | 152.1 | 168.1 | 143.8 | 170.8 |
| 400 | 133.6 | 144.7 | 150.0 | 151.3 | 160.9 | 160.6 | 169.4 | 171.3 |
| 350 | 156.3 | 138.4 | 144.9 | 229.2 | 209.2 | 179.3 | | 405.6 |
| 300 | | 139.5 | | | | | | |
| LONG | -47.23 | -43.51 | -41.30 | -39.35 | -36.03 | -32.71 | -28.30 | -23.94 |
| LAT | 74.57 | 75.81 | 76.13 | 76.73 | 77.41 | 78.09 | 78.61 | 79.07 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3901 AT RESLUT, 63 712

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 24450 | 24518 | 24526 | 24542 | 24600 | 24618 | 24634 | 24708 |
| 1000 | 0.133 | 0.141 | 0.142 | 0.114 | 0.161 | 0.180 | 0.155 | 0.209 |
| 950 | 0.162 | 0.171 | 0.166 | 0.135 | 0.188 | 0.210 | 0.183 | 0.241 |
| 900 | 0.190 | 0.201 | 0.189 | 0.161 | 0.216 | 0.239 | 0.216 | 0.275 |
| 850 | 0.218 | 0.230 | 0.216 | 0.190 | 0.249 | 0.279 | 0.253 | 0.312 |
| 800 | 0.250 | 0.263 | 0.246 | 0.224 | 0.287 | 0.330 | 0.298 | 0.357 |
| 750 | 0.290 | 0.303 | 0.281 | 0.266 | 0.334 | 0.391 | 0.353 | 0.418 |
| 700 | 0.358 | 0.360 | 0.335 | 0.314 | 0.387 | 0.463 | 0.417 | 0.490 |
| 650 | 0.401 | 0.435 | 0.399 | 0.368 | 0.447 | 0.553 | 0.489 | 0.574 |
| 600 | 0.490 | 0.538 | 0.475 | 0.455 | 0.551 | 0.656 | 0.602 | 0.669 |
| 550 | 0.606 | 0.656 | 0.640 | 0.571 | 0.687 | 0.803 | 0.755 | 0.871 |
| 500 | 0.771 | 0.871 | 0.897 | 0.710 | 0.849 | 1.017 | 0.941 | 1.165 |
| 450 | 1.014 | 1.173 | 1.171 | 0.905 | 1.077 | 1.296 | 1.201 | 1.526 |
| 400 | 1.365 | 1.673 | 1.460 | 1.153 | 1.365 | 1.668 | 1.529 | 1.962 |
| 350 | 1.769 | | 1.848 | 1.492 | 1.735 | 2.179 | 1.948 | 2.456 |
| 300 | 2.195 | | | 1.958 | 2.258 | | 2.452 | |
| | | | | | | | | |
| 900 | 339.9 | 338.8 | 363.3 | 285.2 | 340.3 | 321.8 | 298.3 | 358.3 |
| 850 | 347.4 | 356.7 | 352.4 | 292.4 | 339.0 | 317.3 | 299.3 | 348.7 |
| 800 | 342.4 | 341.2 | 341.4 | 296.0 | 331.6 | 310.6 | 296.7 | 336.0 |
| 750 | 330.7 | 321.0 | 327.3 | 287.4 | 318.8 | 303.9 | 289.3 | 319.1 |
| 700 | 308.4 | 284.5 | 297.4 | 278.7 | 306.0 | 293.9 | 281.8 | 302.1 |
| 650 | 269.0 | 253.5 | 267.5 | 270.1 | 293.2 | 278.9 | 274.3 | 285.2 |
| 600 | 246.2 | 235.5 | 237.5 | 256.3 | 273.8 | 263.9 | 258.5 | 268.2 |
| 550 | 227.3 | 217.5 | 211.1 | 240.8 | 252.9 | 245.0 | 238.9 | 240.0 |
| 500 | 203.8 | 187.4 | 186.4 | 225.4 | 231.9 | 222.6 | 220.7 | 207.3 |
| 450 | 178.3 | 156.5 | 198.1 | 214.2 | 221.9 | 203.6 | 212.7 | 195.4 |
| 400 | 186.0 | 132.4 | 217.5 | 204.4 | 214.7 | 195.9 | 209.7 | 211.1 |
| 350 | 214.6 | | 216.0 | 191.9 | 199.4 | 187.3 | 213.8 | 292.0 |
| 300 | 293.1 | | | 178.6 | 201.7 | | 246.2 | |
| LONG | -19.31 | -10.95 | -8.38 | -3.24 | 2.55 | 8.45 | 13.69 | 24.36 |
| LAT | 79.57 | 80.04 | 80.13 | 80.30 | 80.30 | 80.35 | 80.22 | 79.81 |
| QUAL | 32 | 32 | 32 | 32 | 33 | 33 | 32 | 32 |

PASS 3901 AT RESLUT, 63 712

ELECTRON DENSITY IN ELECTRONS PER CC (X.0-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 24728 | 24746 | 24804 | 24822 | 24838 | 24856 | 24922 |
| 1000 | 0.193 | 0.168 | 0.222 | 0.229 | 0.186 | 0.195 | 0.204 |
| 950 | 0.222 | 0.199 | 0.254 | 0.259 | 0.214 | 0.220 | 0.231 |
| 900 | 0.255 | 0.231 | 0.283 | 0.294 | 0.248 | 0.252 | 0.267 |
| 850 | 0.296 | 0.269 | 0.322 | 0.336 | 0.287 | 0.288 | 0.311 |
| 800 | 0.349 | 0.312 | 0.367 | 0.388 | 0.333 | 0.332 | 0.363 |
| 750 | 0.411 | 0.364 | 0.425 | 0.454 | 0.392 | 0.388 | 0.429 |
| 700 | 0.485 | 0.429 | 0.495 | 0.532 | 0.460 | 0.452 | 0.506 |
| 650 | 0.569 | 0.504 | 0.575 | 0.621 | 0.540 | 0.526 | 0.593 |
| 600 | 0.700 | 0.588 | 0.666 | 0.793 | 0.696 | 0.661 | 0.781 |
| 550 | 0.833 | 0.730 | 0.818 | 1.012 | 0.894 | 0.861 | 1.030 |
| 500 | 1.062 | 0.927 | 1.013 | 1.316 | 1.145 | 1.123 | 1.366 |
| 450 | 1.399 | 1.171 | 1.272 | 1.725 | 1.485 | 1.487 | 1.805 |
| 400 | 1.752 | 1.482 | 1.614 | 2.218 | 1.893 | 1.950 | 2.356 |
| 350 | | 1.875 | 2.100 | | 2.302 | | |
| 300 | | | | | | | |
| | | | | | | | |
| 950 | 333.5 | | | 375.2 | 332.9 | 368.6 | 350.9 |
| 900 | 330.6 | 316.1 | 385.1 | 364.9 | 330.7 | 358.7 | 340.7 |
| 850 | 322.4 | 317.7 | 367.7 | 349.8 | 328.6 | 347.3 | 330.6 |
| 800 | 314.2 | 319.3 | 354.4 | 332.5 | 320.5 | 331.9 | 319.8 |
| 750 | 306.1 | 315.0 | 340.7 | 313.0 | 300.7 | 315.7 | 296.9 |
| 700 | 296.4 | 301.8 | 327.3 | 293.4 | 280.9 | 295.5 | 273.9 |
| 650 | 280.2 | 288.6 | 313.8 | 273.9 | 261.0 | 277.2 | 251.0 |
| 600 | 263.9 | 275.4 | 300.4 | 238.3 | 240.2 | 247.9 | 222.7 |
| 550 | 247.7 | 255.6 | 269.1 | 202.1 | 219.4 | 212.9 | 193.9 |
| 500 | 229.6 | 232.9 | 234.7 | 191.6 | 205.6 | 188.9 | 183.0 |
| 450 | 210.6 | 210.8 | 216.6 | 190.6 | 208.8 | 185.5 | 185.1 |
| 400 | 293.0 | 213.8 | 204.4 | 391.2 | 229.8 | 195.9 | 242.3 |
| 350 | | 297.9 | 223.7 | | 421.6 | | |
| 300 | | | | | | | |
| LONG | 29.74 | 34.58 | 39.12 | 42.62 | 45.74 | 49.24 | 53.03 |
| LAT | 79.51 | 78.85 | 78.35 | 77.70 | 77.12 | 76.47 | 75.36 |
| QUAL | 33 | 32 | 32 | 32 | 32 | 32 | 32 |

PASS 3921 AT RESLUT, 65 713

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 135816 | 135832 | 135850 | 135908 | 135926 | 135942 | 140000 | 140018 |
| 1000 | 0.072 | 0.070 | 0.079 | 0.078 | 0.123 | 0.114 | 0.147 | 0.109 |
| 950 | 0.088 | 0.086 | 0.096 | 0.096 | 0.151 | 0.134 | 0.172 | 0.137 |
| 900 | 0.105 | 0.103 | 0.114 | 0.116 | 0.181 | 0.155 | 0.195 | 0.164 |
| 850 | 0.126 | 0.123 | 0.136 | 0.141 | 0.213 | 0.177 | 0.224 | 0.191 |
| 800 | 0.149 | 0.147 | 0.162 | 0.172 | 0.247 | 0.207 | 0.257 | 0.221 |
| 750 | 0.177 | 0.173 | 0.191 | 0.207 | 0.284 | 0.241 | 0.296 | 0.257 |
| 700 | 0.210 | 0.208 | 0.230 | 0.247 | 0.334 | 0.280 | 0.348 | 0.298 |
| 650 | 0.259 | 0.249 | 0.275 | 0.295 | 0.393 | 0.333 | 0.410 | 0.363 |
| 600 | 0.310 | 0.294 | 0.326 | 0.370 | 0.460 | 0.424 | 0.481 | 0.443 |
| 550 | 0.372 | 0.368 | 0.409 | 0.460 | 0.566 | 0.533 | 0.562 | 0.539 |
| 500 | 0.496 | 0.486 | 0.547 | 0.581 | 0.720 | 0.663 | 0.687 | 0.675 |
| 450 | 0.649 | 0.631 | 0.718 | 0.768 | 0.909 | 0.842 | 0.866 | 0.865 |
| 400 | 0.862 | 0.826 | 0.961 | 1.004 | 1.163 | 1.076 | 1.123 | 1.099 |
| 350 | 1.201 | 1.110 | 1.279 | 1.338 | 1.491 | 1.387 | 1.464 | 1.431 |
| 300 | 1.645 | 1.516 | 1.732 | 1.759 | 1.947 | 1.815 | 1.911 | 1.900 |
| | | | | | | | | |
| 900 | 269.8 | 262.4 | 271.8 | 251.1 | 290.7 | 325.5 | 354.1 | 289.1 |
| 850 | 272.6 | 270.3 | 276.8 | 256.7 | 306.0 | 328.8 | 345.1 | 314.9 |
| 800 | 275.4 | 278.2 | 281.9 | 259.6 | 313.7 | 315.6 | 336.2 | 314.9 |
| 750 | 274.0 | 285.5 | 284.2 | 258.6 | 321.4 | 302.5 | 327.1 | 303.0 |
| 700 | 265.6 | 272.9 | 271.4 | 258.2 | 306.7 | 289.4 | 317.6 | 291.1 |
| 650 | 257.2 | 260.3 | 258.6 | 256.1 | 290.3 | 276.5 | 308.2 | 279.6 |
| 600 | 248.8 | 247.7 | 245.8 | 238.5 | 273.6 | 260.0 | 298.7 | 260.1 |
| 550 | 238.2 | 233.1 | 229.1 | 221.9 | 255.9 | 244.5 | 289.3 | 244.5 |
| 500 | 210.0 | 216.5 | 207.6 | 207.1 | 236.8 | 229.0 | 257.0 | 230.0 |
| 450 | 181.8 | 200.0 | 186.1 | 195.8 | 217.7 | 216.5 | 206.9 | 216.3 |
| 400 | 170.1 | 184.0 | 177.1 | 185.0 | 205.5 | 205.6 | 195.2 | 202.3 |
| 350 | 161.7 | 169.0 | 171.6 | 178.7 | 197.1 | 194.8 | 190.7 | 184.2 |
| 300 | 166.4 | 166.1 | 168.8 | 191.0 | 195.2 | 191.6 | 194.4 | 179.0 |
| LONG | -136.23 | -132.51 | -128.33 | -124.70 | -121.74 | -119.11 | -116.16 | -114.08 |
| LAT | 78.89 | 78.39 | 77.82 | 77.19 | 76.47 | 75.82 | 75.10 | 74.28 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3921 AT RESLUT, 63 713

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 140036 | 140054 | 140128 | 140146 | 140204 | 140220 | 140238 | 140256 |
| 1000 | 0.136 | 0.097 | 0.156 | 0.145 | 0.153 | 0.180 | 0.186 | 0.209 |
| 950 | 0.157 | 0.119 | 0.180 | 0.172 | 0.176 | 0.203 | 0.206 | 0.227 |
| 900 | 0.182 | 0.141 | 0.210 | 0.196 | 0.202 | 0.225 | 0.231 | 0.250 |
| 850 | 0.212 | 0.168 | 0.244 | 0.226 | 0.232 | 0.256 | 0.264 | 0.281 |
| 800 | 0.245 | 0.198 | 0.284 | 0.262 | 0.266 | 0.293 | 0.303 | 0.319 |
| 750 | 0.282 | 0.236 | 0.337 | 0.305 | 0.304 | 0.337 | 0.349 | 0.366 |
| 700 | 0.334 | 0.279 | 0.400 | 0.360 | 0.352 | 0.396 | 0.408 | 0.423 |
| 650 | 0.401 | 0.327 | 0.474 | 0.424 | 0.421 | 0.465 | 0.478 | 0.488 |
| 600 | 0.480 | 0.400 | 0.557 | 0.498 | 0.503 | 0.544 | 0.559 | 0.562 |
| 550 | 0.584 | 0.498 | 0.685 | 0.583 | 0.600 | 0.633 | 0.650 | 0.646 |
| 500 | 0.735 | 0.615 | 0.884 | 0.753 | 0.743 | 0.765 | 0.787 | 0.810 |
| 450 | 0.917 | 0.783 | 1.125 | 0.962 | 0.947 | 0.991 | 1.014 | 1.010 |
| 400 | 1.179 | 1.002 | 1.428 | 1.239 | 1.195 | 1.268 | 1.301 | 1.265 |
| 350 | 1.528 | 1.315 | | 1.602 | 1.561 | 1.616 | 1.675 | 1.582 |
| 300 | 1.997 | 1.726 | | 2.129 | 2.053 | 2.063 | 2.272 | 2.033 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 333.1 | | 323.8 | | 353.1 | 384.2 | 409.1 | 508.1 |
| 900 | 333.7 | 274.4 | 319.2 | 344.6 | 357.6 | 392.4 | 400.9 | 475.9 |
| 850 | 329.1 | 283.7 | 314.6 | 335.2 | 357.0 | 374.7 | 385.0 | 438.0 |
| 800 | 321.0 | 291.6 | 310.0 | 325.8 | 343.9 | 357.0 | 369.0 | 400.2 |
| 750 | 312.9 | 285.4 | 300.6 | 315.7 | 330.9 | 340.2 | 353.1 | 373.1 |
| 700 | 299.1 | 279.2 | 289.9 | 304.1 | 316.2 | 326.8 | 336.6 | 356.1 |
| 650 | 282.5 | 273.0 | 279.1 | 292.5 | 298.9 | 313.4 | 319.9 | 339.1 |
| 600 | 266.0 | 260.2 | 268.4 | 281.0 | 281.6 | 300.0 | 303.2 | 322.1 |
| 550 | 249.8 | 244.2 | 253.3 | 268.8 | 264.2 | 286.6 | 286.5 | 304.8 |
| 500 | 234.3 | 228.3 | 233.4 | 241.4 | 245.3 | 265.5 | 261.9 | 268.9 |
| 450 | 218.9 | 212.9 | 213.4 | 214.0 | 225.1 | 229.8 | 225.8 | 233.1 |
| 400 | 203.1 | 197.6 | 208.8 | 197.3 | 205.4 | 204.8 | 197.2 | 221.3 |
| 350 | 191.9 | 188.8 | | 187.9 | 190.9 | 205.9 | 182.5 | 212.4 |
| 300 | 194.4 | 211.0 | | 175.7 | 187.5 | 202.7 | 157.7 | 198.5 |
| LONG | -112.00 | -109.91 | -106.88 | -105.37 | -103.95 | -102.96 | -101.84 | -100.73 |
| LAT | 73.46 | 72.64 | 71.00 | 70.12 | 69.24 | 68.42 | 67.51 | 66.59 |
| QUAL | 33 | 33 | 33 | 32 | 33 | 33 | 33 | 33 |

PASS 3921 AT RESLUT, 63 713

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 140314 | 140332 | 140348 | 140406 | 140424 | 140442 | 140458 | 140516 |
| 1000 | 0.163 | 0.202 | 0.178 | 0.144 | 0.109 | 0.100 | 0.081 | 0.086 |
| 950 | 0.187 | 0.224 | 0.197 | 0.168 | 0.132 | 0.123 | 0.098 | 0.104 |
| 900 | 0.212 | 0.249 | 0.218 | 0.194 | 0.153 | 0.143 | 0.112 | 0.121 |
| 850 | 0.243 | 0.276 | 0.243 | 0.225 | 0.181 | 0.169 | 0.134 | 0.144 |
| 800 | 0.280 | 0.310 | 0.274 | 0.259 | 0.213 | 0.198 | 0.160 | 0.171 |
| 750 | 0.321 | 0.350 | 0.310 | 0.298 | 0.249 | 0.232 | 0.191 | 0.200 |
| 700 | 0.372 | 0.395 | 0.351 | 0.351 | 0.294 | 0.274 | 0.229 | 0.237 |
| 650 | 0.437 | 0.446 | 0.398 | 0.412 | 0.352 | 0.320 | 0.273 | 0.287 |
| 600 | 0.512 | 0.503 | 0.495 | 0.483 | 0.419 | 0.383 | 0.323 | 0.346 |
| 550 | 0.596 | 0.631 | 0.613 | 0.562 | 0.496 | 0.483 | 0.405 | 0.414 |
| 500 | 0.758 | 0.808 | 0.775 | 0.747 | 0.628 | 0.605 | 0.521 | 0.489 |
| 450 | 1.015 | 1.029 | 1.017 | 0.985 | 0.840 | 0.776 | 0.662 | 0.680 |
| 400 | 1.337 | 1.394 | 1.337 | 1.285 | 1.117 | 1.047 | 0.916 | 0.951 |
| 350 | 1.733 | 1.853 | 1.770 | 1.669 | 1.478 | 1.416 | 1.262 | 1.295 |
| 300 | 2.273 | 2.387 | 2.307 | 2.176 | 1.957 | 1.890 | 1.691 | 1.743 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 900 | 360.0 | 446.7 | 443.9 | 332.5 | 293.0 | 293.0 | 285.9 | 285.7 |
| 850 | 354.8 | 432.1 | 421.9 | 331.7 | 295.4 | 300.1 | 286.7 | 286.4 |
| 800 | 349.7 | 412.2 | 400.1 | 331.1 | 297.8 | 307.1 | 287.5 | 287.1 |
| 750 | 344.5 | 392.4 | 378.4 | 328.1 | 300.2 | 303.7 | 288.3 | 287.8 |
| 700 | 331.7 | 372.6 | 356.7 | 311.5 | 294.7 | 291.0 | 278.1 | 284.0 |
| 650 | 309.9 | 352.8 | 334.5 | 294.8 | 280.1 | 278.2 | 265.3 | 270.7 |
| 600 | 288.2 | 332.9 | 288.6 | 278.2 | 265.4 | 262.3 | 252.4 | 257.4 |
| 550 | 266.4 | 286.8 | 242.7 | 261.5 | 250.8 | 240.4 | 233.4 | 244.0 |
| 500 | 239.1 | 238.0 | 209.3 | 230.1 | 225.1 | 218.5 | 211.6 | 230.7 |
| 450 | 208.1 | 192.0 | 194.6 | 197.9 | 189.9 | 196.2 | 189.9 | 202.9 |
| 400 | 188.1 | 181.6 | 184.1 | 190.0 | 178.5 | 173.2 | 158.9 | 171.6 |
| 350 | 189.2 | 185.1 | 184.5 | 190.9 | 179.2 | 172.2 | 163.7 | 165.2 |
| 300 | 193.8 | 236.7 | 196.3 | 196.7 | 184.9 | 187.0 | 169.0 | 171.4 |
| LONG | -99.81 | -98.95 | -98.19 | -97.40 | -96.72 | -96.05 | -95.45 | -94.90 |
| LAT | 65.66 | 64.72 | 63.89 | 62.94 | 61.99 | 61.03 | 60.19 | 59.22 |
| QUAL | 33 | 32 | 33 | 33 | 32 | 22 | 22 | 21 |

PASS 3921 AT RESLUT, 65 713

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 140534 | 140552 |
| 1000 | 0.071 | 0.080 |
| 950 | 0.089 | 0.097 |
| 900 | 0.106 | 0.114 |
| 850 | 0.124 | 0.132 |
| 800 | 0.148 | 0.157 |
| 750 | 0.176 | 0.186 |
| 700 | 0.207 | 0.220 |
| 650 | 0.251 | 0.266 |
| 600 | 0.302 | 0.322 |
| 550 | 0.360 | 0.386 |
| 500 | 0.476 | 0.482 |
| 450 | 0.631 | 0.663 |
| 400 | 0.891 | 0.999 |
| 350 | 1.253 | 1.261 |
| 300 | 1.693 | 1.731 |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 900 | | 281.0 |
| 850 | 281.3 | 293.5 |
| 800 | 281.5 | 289.8 |
| 750 | 281.8 | 286.1 |
| 700 | 279.1 | 282.4 |
| 650 | 263.1 | 268.0 |
| 600 | 247.2 | 252.3 |
| 550 | 231.2 | 236.5 |
| 500 | 206.9 | 216.2 |
| 450 | 179.0 | 186.4 |
| 400 | 160.7 | 160.4 |
| 350 | 157.2 | 155.5 |
| 300 | 161.5 | 164.5 |

| | | |
|---|---|---|
| LONG | -94.36 | -93.82 |
| LAT | 58.26 | 57.29 |
| QUAL | 11 | 11 |

PASS 3921 AT QUITOE, 63 713

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 141820 | 141855 | 141913 | 141948 | 142023 | 142041 | 142116 | 142151 |
| 1000 | 0.088 | 0.094 | 0.093 | 0.100 | 0.103 | 0.109 | 0.121 | 0.117 |
| 950 | 0.098 | 0.102 | 0.104 | 0.108 | 0.115 | 0.120 | 0.132 | 0.129 |
| 900 | 0.108 | 0.112 | 0.114 | 0.118 | 0.128 | 0.132 | 0.144 | 0.143 |
| 850 | 0.120 | 0.125 | 0.125 | 0.132 | 0.144 | 0.147 | 0.159 | 0.159 |
| 800 | 0.134 | 0.141 | 0.140 | 0.152 | 0.162 | 0.167 | 0.179 | 0.179 |
| 750 | 0.153 | 0.160 | 0.164 | 0.175 | 0.185 | 0.191 | 0.202 | 0.203 |
| 700 | 0.176 | 0.182 | 0.195 | 0.199 | 0.216 | 0.218 | 0.232 | 0.231 |
| 650 | 0.203 | 0.208 | 0.231 | 0.229 | 0.252 | 0.254 | 0.268 | 0.264 |
| 600 | 0.236 | 0.250 | 0.276 | 0.275 | 0.293 | 0.296 | 0.315 | 0.317 |
| 550 | 0.286 | 0.306 | 0.327 | 0.333 | 0.357 | 0.357 | 0.388 | 0.393 |
| 500 | 0.357 | 0.399 | 0.420 | 0.418 | 0.443 | 0.447 | 0.478 | 0.484 |
| 450 | 0.474 | 0.527 | 0.566 | 0.573 | 0.572 | 0.591 | 0.630 | 0.635 |
| 400 | 0.667 | 0.724 | 0.796 | 0.827 | 0.820 | 0.858 | 0.887 | 0.887 |
| 350 | 0.955 | 1.029 | 1.156 | 1.189 | 1.200 | 1.306 | 1.330 | 1.409 |
| 300 | 1.397 | 1.497 | 1.659 | 1.752 | 1.763 | | 2.052 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 488.9 | 551.0 | 523.5 | 578.7 | 449.9 | 506.2 | 563.4 | 489.3 |
| 900 | 472.5 | 486.2 | 493.7 | 492.0 | 434.4 | 461.0 | 508.8 | 471.7 |
| 850 | 440.9 | 433.3 | 441.0 | 437.4 | 407.5 | 426.8 | 466.6 | 430.8 |
| 800 | 413.1 | 398.8 | 398.5 | 404.0 | 380.5 | 406.0 | 432.9 | 398.9 |
| 750 | 393.7 | 379.2 | 367.8 | 372.1 | 357.2 | 385.2 | 399.3 | 375.2 |
| 700 | 374.3 | 359.6 | 337.1 | 344.6 | 337.3 | 364.2 | 360.9 | 351.5 |
| 650 | 343.0 | 339.5 | 306.3 | 316.2 | 317.4 | 329.9 | 320.9 | 327.9 |
| 600 | 288.5 | 278.4 | 277.2 | 284.4 | 297.5 | 295.7 | 283.9 | 296.4 |
| 550 | 249.1 | 223.0 | 248.0 | 252.6 | 262.8 | 256.8 | 252.7 | 260.1 |
| 500 | 208.6 | 197.0 | 197.7 | 202.6 | 222.4 | 214.2 | 221.4 | 223.8 |
| 450 | 165.8 | 173.1 | 160.5 | 149.4 | 180.8 | 167.1 | 180.0 | 181.5 |
| 400 | 142.8 | 156.6 | 144.4 | 138.3 | 137.9 | 128.1 | 137.1 | 134.1 |
| 350 | 138.0 | 137.8 | 139.0 | 134.6 | 131.8 | 113.7 | 121.0 | 106.6 |
| 300 | 125.8 | 129.9 | 149.7 | 124.0 | 127.0 | | 107.6 | |
| LONG | -84.57 | -84.36 | -84.26 | -84.06 | -83.87 | -83.77 | -83.58 | -83.40 |
| LAT | 15.86 | 13.89 | 12.88 | 10.91 | 8.94 | 7.93 | 5.96 | 3.99 |
| QUAL | 23 | 33 | 23 | 33 | 33 | 33 | 13 | 13 |

PASS 3921 AT QUITOE, 63 713

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 142226 | 142244 | 142317 | 142354 | 142411 | 142504 | 142539 | 142614 |
| 1000 | 0.132 | 0.128 | 0.134 | 0.127 | | 0.112 | 0.127 | 0.120 |
| 950 | 0.145 | 0.140 | 0.146 | 0.137 | | 0.122 | 0.137 | 0.130 |
| 900 | 0.159 | 0.153 | 0.160 | 0.148 | | 0.134 | 0.149 | 0.142 |
| 850 | 0.176 | 0.169 | 0.175 | 0.160 | | 0.149 | 0.164 | 0.158 |
| 800 | 0.197 | 0.190 | 0.194 | 0.174 | | 0.171 | 0.187 | 0.178 |
| 750 | 0.221 | 0.215 | 0.214 | 0.193 | | 0.198 | 0.214 | 0.202 |
| 700 | 0.251 | 0.244 | 0.237 | 0.221 | | 0.229 | 0.247 | 0.232 |
| 650 | 0.288 | 0.277 | 0.274 | 0.257 | | 0.267 | 0.285 | 0.266 |
| 600 | 0.335 | 0.315 | 0.318 | 0.300 | | 0.312 | 0.329 | 0.311 |
| 550 | 0.409 | 0.386 | 0.414 | 0.384 | | 0.388 | 0.413 | 0.389 |
| 500 | 0.500 | 0.477 | 0.555 | 0.521 | | 0.488 | 0.530 | 0.489 |
| 450 | 0.691 | 0.658 | 0.798 | 0.769 | | 0.710 | 0.784 | 0.707 |
| 400 | 1.038 | 1.031 | 1.245 | 1.287 | | 1.162 | 1.390 | 1.258 |
| 350 | 1.758 | 1.788 | 2.222 | 2.521 | | 2.608 | 2.904 | 2.479 |
| 300 | 2.905 | | | | | | | 4.568 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 514.0 | 551.7 | 568.4 | 639.4 | | 541.5 | 592.4 | 577.3 |
| 900 | 493.1 | 506.9 | 539.4 | 623.2 | | 475.0 | 522.9 | 509.8 |
| 850 | 468.5 | 468.6 | 519.6 | 589.0 | | 428.9 | 463.8 | 467.3 |
| 800 | 439.7 | 444.5 | 494.3 | 506.2 | | 402.8 | 427.0 | 437.0 |
| 750 | 410.9 | 420.5 | 455.2 | 437.8 | | 376.7 | 390.1 | 406.8 |
| 700 | 375.4 | 390.1 | 413.7 | 388.4 | | 348.9 | 354.1 | 368.7 |
| 650 | 338.5 | 352.9 | 342.6 | 339.0 | | 312.0 | 319.3 | 323.5 |
| 600 | 300.2 | 315.6 | 271.5 | 289.6 | | 274.0 | 284.6 | 279.1 |
| 550 | 257.1 | 264.3 | 214.2 | 228.7 | | 229.5 | 233.6 | 237.0 |
| 500 | 213.9 | 213.1 | 159.7 | 158.6 | | 184.7 | 180.6 | 194.9 |
| 450 | 162.5 | 157.4 | 134.7 | 122.3 | | 131.6 | 124.2 | 134.6 |
| 400 | 112.4 | 103.8 | 92.8 | 74.8 | | 78.3 | 68.1 | 73.6 |
| 350 | 93.1 | 92.6 | 93.3 | 87.1 | | 70.9 | 76.2 | 74.8 |
| 300 | 131.4 | | | | | | | 120.4 |
| LONG | -83.21 | -83.12 | -82.94 | -82.75 | | -82.38 | -82.19 | -82.00 |
| LAT | 2.02 | 1.00 | -0.85 | -2.93 | | -6.87 | -8.84 | -10.81 |
| QUAL | 13 | 13 | 13 | 13 | | 23 | 23 | 13 |

PASS 3921 AT QUITOE, 63 713

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 142649 | 142726 |
| 1000 | 0.121 | 0.124 |
| 950 | 0.131 | 0.135 |
| 900 | 0.143 | 0.148 |
| 850 | 0.159 | 0.163 |
| 800 | 0.179 | 0.182 |
| 750 | 0.203 | 0.204 |
| 700 | 0.232 | 0.231 |
| 650 | 0.265 | 0.261 |
| 600 | 0.303 | 0.301 |
| 550 | 0.369 | 0.348 |
| 500 | 0.459 | 0.424 |
| 450 | 0.651 | 0.556 |
| 400 | 1.112 | 0.913 |
| 350 | 2.201 | 1.650 |
| 300 | 4.225 | 3.246 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 562.6 | 574.5 |
| 900 | 505.7 | 529.9 |
| 850 | 463.6 | 467.8 |
| 800 | 428.2 | 442.5 |
| 750 | 393.3 | 427.2 |
| 700 | 368.0 | 411.8 |
| 650 | 342.8 | 396.4 |
| 600 | 317.5 | 350.6 |
| 550 | 263.0 | 302.5 |
| 500 | 200.0 | 237.0 |
| 450 | 116.6 | 130.2 |
| 400 | 84.3 | 99.9 |
| 350 | 74.4 | 76.1 |
| 300 | 95.4 | 72.0 |
| LONG | -81.80 | -81.59 |
| LAT | -12.77 | -14.85 |
| QUAL | 13 | 13 |

PASS 3927 AT AGASTA, 63 714

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 14133 | 14707 |
| 1000 | 0.094 | 0.094 |
| 950 | 0.098 | 0.099 |
| 900 | 0.103 | 0.105 |
| 850 | 0.109 | 0.111 |
| 800 | 0.116 | 0.119 |
| 750 | 0.124 | 0.129 |
| 700 | 0.134 | 0.142 |
| 650 | 0.147 | 0.163 |
| 600 | 0.163 | 0.199 |
| 550 | 0.185 | 0.261 |
| 500 | 0.223 | 0.361 |
| 450 | 0.318 | 0.568 |
| 400 | 0.520 | 0.864 |
| 350 | 0.839 | 1.377 |
| 300 | 1.223 | |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 1057.2 | 935.3 |
| 900 | 963.0 | 888.1 |
| 850 | 832.2 | 784.4 |
| 800 | 767.5 | 664.7 |
| 750 | 702.8 | 562.8 |
| 700 | 618.8 | 466.2 |
| 650 | 510.7 | 327.6 |
| 600 | 427.5 | 222.4 |
| 550 | 351.7 | 176.2 |
| 500 | 221.8 | 150.2 |
| 450 | 126.1 | 130.5 |
| 400 | 107.1 | 113.2 |
| 350 | 127.9 | 129.2 |
| 300 | 189.8 | |
| LONG | -78.04 | -75.99 |
| LAT | -24.90 | -6.03 |
| QUAL | 33 | 33 |

PASS 3928 AT RESLUT, 63 714

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 20804 | 20822 | 20840 | 20856 | 20914 | 20932 | 20950 | 21008 |
| 1000 | 0.062 | 0.074 | 0.066 | 0.078 | 0.079 | 0.070 | 0.088 | 0.102 |
| 950 | 0.080 | 0.090 | 0.082 | 0.097 | 0.103 | 0.089 | 0.108 | 0.124 |
| 900 | 0.102 | 0.108 | 0.102 | 0.119 | 0.124 | 0.112 | 0.131 | 0.149 |
| 850 | 0.127 | 0.131 | 0.127 | 0.143 | 0.152 | 0.137 | 0.158 | 0.179 |
| 800 | 0.156 | 0.163 | 0.159 | 0.171 | 0.187 | 0.172 | 0.190 | 0.212 |
| 750 | 0.194 | 0.201 | 0.199 | 0.207 | 0.227 | 0.215 | 0.227 | 0.254 |
| 700 | 0.241 | 0.246 | 0.245 | 0.252 | 0.273 | 0.264 | 0.269 | 0.305 |
| 650 | 0.296 | 0.306 | 0.306 | 0.305 | 0.339 | 0.322 | 0.337 | 0.364 |
| 600 | 0.368 | 0.386 | 0.386 | 0.364 | 0.420 | 0.414 | 0.420 | 0.434 |
| 550 | 0.498 | 0.479 | 0.479 | 0.485 | 0.515 | 0.524 | 0.523 | 0.590 |
| 500 | 0.660 | 0.686 | 0.625 | 0.643 | 0.630 | 0.652 | 0.710 | 0.758 |
| 450 | 0.900 | 0.811 | 0.865 | 0.872 | 0.904 | 0.844 | 0.947 | 1.015 |
| 400 | 1.238 | 1.150 | 1.244 | 1.244 | 1.330 | 1.321 | 1.333 | 1.365 |
| 350 | 1.739 | 1.642 | 1.830 | 1.855 | 1.998 | 1.974 | 1.893 | 1.953 |
| 300 | 2.500 | 2.342 | 2.730 | 2.687 | 2.953 | 2.762 | 2.598 | 2.781 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 900 | 213.1 | 245.9 | 227.8 | 252.2 | | | 254.1 | 265.7 |
| 850 | 221.1 | 246.0 | 229.8 | 256.4 | 242.0 | 224.6 | 263.8 | 272.4 |
| 800 | 229.2 | 243.9 | 229.8 | 260.7 | 245.6 | 226.4 | 261.7 | 279.1 |
| 750 | 227.6 | 241.9 | 229.8 | 255.4 | 248.9 | 227.5 | 259.6 | 273.3 |
| 700 | 222.9 | 239.8 | 229.8 | 247.4 | 252.3 | 228.7 | 257.4 | 259.8 |
| 650 | 218.3 | 232.9 | 222.6 | 239.4 | 243.0 | 228.7 | 239.4 | 246.3 |
| 600 | 211.1 | 222.8 | 211.9 | 231.5 | 230.7 | 216.7 | 221.3 | 230.2 |
| 550 | 193.3 | 212.7 | 201.2 | 207.5 | 218.5 | 204.7 | 203.2 | 211.9 |
| 500 | 175.6 | 202.5 | 185.7 | 181.6 | 203.5 | 192.7 | 184.2 | 193.7 |
| 450 | 163.2 | 177.2 | 162.4 | 157.9 | 152.9 | 174.5 | 165.2 | 175.5 |
| 400 | 152.5 | 145.5 | 141.4 | 137.6 | 128.7 | 129.5 | 148.9 | 157.3 |
| 350 | 142.7 | 143.3 | 128.6 | 129.9 | 133.9 | 142.3 | 141.1 | 141.0 |
| 300 | 137.2 | 154.8 | 139.7 | 151.1 | 163.0 | 155.8 | 162.8 | 172.0 |
| LONG | -60.27 | -59.38 | -58.50 | -57.71 | -56.61 | -55.45 | -54.28 | -52.95 |
| LAT | 63.90 | 64.83 | 65.77 | 66.60 | 67.52 | 68.43 | 69.33 | 70.23 |
| QUAL | 33 | 23 | 23 | 23 | 23 | 23 | 22 | 22 |

PASS 3928 AT RESLUT, 63 714

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 21024 | 21042 | 21100 | 21118 | 21134 | 21152 | 21210 | 21228 |
| 1000 | 0.079 | 0.082 | 0.095 | 0.093 | 0.077 | 0.076 | 0.096 | 0.092 |
| 950 | 0.102 | 0.107 | 0.117 | 0.117 | 0.098 | 0.095 | 0.118 | 0.110 |
| 900 | 0.127 | 0.130 | 0.139 | 0.143 | 0.117 | 0.116 | 0.135 | 0.130 |
| 850 | 0.155 | 0.158 | 0.167 | 0.174 | 0.142 | 0.142 | 0.162 | 0.154 |
| 800 | 0.186 | 0.188 | 0.200 | 0.207 | 0.172 | 0.173 | 0.194 | 0.182 |
| 750 | 0.227 | 0.227 | 0.238 | 0.249 | 0.207 | 0.211 | 0.233 | 0.216 |
| 700 | 0.277 | 0.273 | 0.289 | 0.299 | 0.252 | 0.256 | 0.281 | 0.258 |
| 650 | 0.335 | 0.326 | 0.350 | 0.356 | 0.304 | 0.308 | 0.337 | 0.314 |
| 600 | 0.418 | 0.393 | 0.419 | 0.433 | 0.364 | 0.367 | 0.412 | 0.381 |
| 550 | 0.522 | 0.520 | 0.499 | 0.558 | 0.471 | 0.489 | 0.534 | 0.476 |
| 500 | 0.645 | 0.676 | 0.691 | 0.710 | 0.620 | 0.650 | 0.685 | 0.597 |
| 450 | 0.856 | 0.889 | 0.933 | 0.944 | 0.822 | 0.844 | 0.898 | 0.793 |
| 400 | 1.224 | 1.223 | 1.273 | 1.279 | 1.146 | 1.146 | 1.184 | 1.104 |
| 350 | 1.733 | 1.707 | 1.760 | 1.762 | 1.613 | 1.580 | 1.583 | 1.567 |
| 300 | 2.511 | 2.357 | 2.546 | 2.407 | 2.242 | 2.217 | 2.107 | 2.058 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 900 | | 249.8 | 263.0 | 247.6 | 249.1 | 237.4 | 282.9 | 293.8 |
| 850 | 238.7 | 257.4 | 266.0 | 258.3 | 254.4 | 245.6 | 280.0 | 295.0 |
| 800 | 252.8 | 264.8 | 269.0 | 269.1 | 259.7 | 253.7 | 277.0 | 293.2 |
| 750 | 252.7 | 258.7 | 272.0 | 267.0 | 260.8 | 250.6 | 270.8 | 278.6 |
| 700 | 247.2 | 252.6 | 261.2 | 259.8 | 252.3 | 243.9 | 259.3 | 266.0 |
| 650 | 241.6 | 246.5 | 250.2 | 252.5 | 243.7 | 237.1 | 247.8 | 255.9 |
| 600 | 229.9 | 238.2 | 239.1 | 240.7 | 235.1 | 230.4 | 234.6 | 245.9 |
| 550 | 216.9 | 217.2 | 227.7 | 219.3 | 215.1 | 215.9 | 217.7 | 225.8 |
| 500 | 204.0 | 196.2 | 203.0 | 198.0 | 191.0 | 200.6 | 200.8 | 203.1 |
| 450 | 182.1 | 176.4 | 178.3 | 181.1 | 169.7 | 185.3 | 189.3 | 171.5 |
| 400 | 149.9 | 159.1 | 159.4 | 166.7 | 156.7 | 167.6 | 180.8 | 153.1 |
| 350 | 141.4 | 154.1 | 146.9 | 162.0 | 151.6 | 152.7 | 178.3 | 166.0 |
| 300 | 156.2 | 166.5 | 152.0 | 168.6 | 169.7 | 160.3 | 178.8 | 214.7 |
| LONG | -51.56 | -49.99 | -48.43 | -46.25 | -44.32 | -42.14 | -39.45 | -36.36 |
| LAT | 71.00 | 71.87 | 72.74 | 73.55 | 74.27 | 75.08 | 75.83 | 76.54 |
| QUAL | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 21 |

PASS 3928 AT RESLUT, 63 714

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 21244 | 21302 | 21320 | 21338 | 21356 | 21412 | 21430 | 21448 |
| 1000 | 0.125 | 0.103 | 0.107 | 0.143 | 0.118 | 0.145 | 0.158 | 0.215 |
| 950 | 0.141 | 0.122 | 0.126 | 0.164 | 0.136 | 0.166 | 0.185 | 0.237 |
| 900 | 0.162 | 0.143 | 0.148 | 0.187 | 0.158 | 0.190 | 0.214 | 0.265 |
| 850 | 0.190 | 0.168 | 0.174 | 0.216 | 0.185 | 0.217 | 0.247 | 0.300 |
| 800 | 0.223 | 0.197 | 0.204 | 0.249 | 0.218 | 0.249 | 0.284 | 0.345 |
| 750 | 0.261 | 0.232 | 0.240 | 0.292 | 0.257 | 0.288 | 0.328 | 0.398 |
| 700 | 0.304 | 0.276 | 0.286 | 0.342 | 0.306 | 0.335 | 0.381 | 0.462 |
| 650 | 0.367 | 0.330 | 0.340 | 0.400 | 0.363 | 0.391 | 0.448 | 0.535 |
| 600 | 0.449 | 0.394 | 0.406 | 0.489 | 0.439 | 0.470 | 0.543 | 0.617 |
| 550 | 0.562 | 0.499 | 0.513 | 0.600 | 0.551 | 0.579 | 0.660 | 0.766 |
| 500 | 0.708 | 0.634 | 0.652 | 0.778 | 0.693 | 0.724 | 0.836 | 0.960 |
| 450 | 0.936 | 0.847 | 0.874 | 1.047 | 0.912 | 0.951 | 1.096 | 1.280 |
| 400 | 1.268 | 1.139 | 1.249 | 1.472 | 1.276 | 1.367 | 1.497 | 1.690 |
| 350 | 1.757 | 1.687 | 1.711 | 1.969 | 1.744 | 1.799 | 1.955 | 2.205 |
| 300 | 2.211 | 2.171 | 2.247 | 2.577 | 2.273 | 2.333 | 2.533 | 2.886 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 381.5 | 308.0 | 308.0 | 374.6 | 334.9 | 369.1 | 335.1 | 472.8 |
| 900 | 348.7 | 311.5 | 309.9 | 362.2 | 323.1 | 366.0 | 344.3 | 425.4 |
| 850 | 323.5 | 307.8 | 308.1 | 344.0 | 312.7 | 358.6 | 346.7 | 392.8 |
| 800 | 306.8 | 300.8 | 302.1 | 326.6 | 303.2 | 347.9 | 344.8 | 368.2 |
| 750 | 300.0 | 292.5 | 294.5 | 314.6 | 293.1 | 333.4 | 331.5 | 344.8 |
| 700 | 293.3 | 279.6 | 282.9 | 302.6 | 281.5 | 314.9 | 310.2 | 327.9 |
| 650 | 269.4 | 265.6 | 271.3 | 290.6 | 270.0 | 296.5 | 288.4 | 311.0 |
| 600 | 239.2 | 251.6 | 256.3 | 257.8 | 253.6 | 271.1 | 265.4 | 294.0 |
| 550 | 220.0 | 225.6 | 223.8 | 222.8 | 229.3 | 241.6 | 242.3 | 249.8 |
| 500 | 203.0 | 198.7 | 191.9 | 189.5 | 203.9 | 208.1 | 207.1 | 203.1 |
| 450 | 172.3 | 166.5 | 162.7 | 163.6 | 172.0 | 163.5 | 178.6 | 184.4 |
| 400 | 165.2 | 148.9 | 151.7 | 161.3 | 158.5 | 160.5 | 175.6 | 184.7 |
| 350 | 189.2 | 172.2 | 172.4 | 178.1 | 177.2 | 186.7 | 188.0 | 187.7 |
| 300 | 238.3 | 240.0 | 177.7 | 182.3 | 186.4 | 197.9 | 196.5 | 211.7 |
| LONG | -33.61 | -30.38 | -26.03 | -21.68 | -17.33 | -12.62 | -7.00 | -1.39 |
| LAT | 77.17 | 77.86 | 78.39 | 78.93 | 79.46 | 79.76 | 80.02 | 80.28 |
| QUAL | 21 | 32 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 3928 AT RESLUT, 65 714

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 21506 | 21522 | 21541 | 21558 | 21616 | 21634 | 21650 |
| 1000 | 0.171 | 0.235 | 0.275 | 0.189 | 0.253 | 0.224 | 0.236 |
| 950 | 0.191 | 0.264 | 0.303 | 0.213 | 0.282 | 0.251 | 0.265 |
| 900 | 0.215 | 0.297 | 0.336 | 0.241 | 0.314 | 0.283 | 0.299 |
| 850 | 0.243 | 0.336 | 0.371 | 0.272 | 0.349 | 0.319 | 0.338 |
| 800 | 0.279 | 0.380 | 0.411 | 0.311 | 0.390 | 0.361 | 0.385 |
| 750 | 0.322 | 0.430 | 0.457 | 0.356 | 0.437 | 0.410 | 0.440 |
| 700 | 0.377 | 0.492 | 0.515 | 0.409 | 0.503 | 0.472 | 0.506 |
| 650 | 0.448 | 0.567 | 0.583 | 0.485 | 0.582 | 0.544 | 0.581 |
| 600 | 0.532 | 0.653 | 0.665 | 0.575 | 0.674 | 0.628 | 0.683 |
| 550 | 0.643 | 0.807 | 0.821 | 0.693 | 0.834 | 0.763 | 0.821 |
| 500 | 0.791 | 1.027 | 1.029 | 0.871 | 1.059 | 0.989 | 1.034 |
| 450 | 1.033 | 1.398 | 1.377 | 1.142 | 1.452 | 1.350 | 1.387 |
| 400 | 1.429 | 1.865 | 1.802 | 1.545 | 1.918 | 1.777 | 1.855 |
| 350 | 1.900 | 2.409 | 2.325 | 2.026 | 2.517 | 2.305 | 2.418 |
| 300 | 2.426 | 3.036 | 2.965 | 2.636 | 3.164 | 2.932 | 2.981 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 429.4 | 412.0 | 503.1 | 421.8 | 479.5 | 421.3 | 416.3 |
| 900 | 403.8 | 412.7 | 497.1 | 399.5 | 467.5 | 417.9 | 406.7 |
| 850 | 377.5 | 413.2 | 495.1 | 381.7 | 455.0 | 414.4 | 396.4 |
| 800 | 355.5 | 399.0 | 465.0 | 367.0 | 421.0 | 386.0 | 380.5 |
| 750 | 333.5 | 373.9 | 427.8 | 352.2 | 387.9 | 359.4 | 365.0 |
| 700 | 315.7 | 349.9 | 394.9 | 336.7 | 359.0 | 340.1 | 350.9 |
| 650 | 300.7 | 326.1 | 362.0 | 309.6 | 330.0 | 320.8 | 336.8 |
| 600 | 285.7 | 302.2 | 326.6 | 282.5 | 301.0 | 301.5 | 294.5 |
| 550 | 255.7 | 246.2 | 262.7 | 251.7 | 244.8 | 255.7 | 244.8 |
| 500 | 215.2 | 191.0 | 205.3 | 212.5 | 191.3 | 179.5 | 199.2 |
| 450 | 179.0 | 171.3 | 187.0 | 184.5 | 171.3 | 175.8 | 172.4 |
| 400 | 161.7 | 184.4 | 191.9 | 177.1 | 182.0 | 187.1 | 181.1 |
| 350 | 189.2 | 204.8 | 198.2 | 186.5 | 200.3 | 201.3 | 209.0 |
| 300 | 198.7 | 244.3 | 221.0 | 196.6 | 270.4 | 232.1 | 322.4 |
| LONG | 4.35 | 9.67 | 15.99 | 21.64 | 26.84 | 31.94 | 36.48 |
| LAT | 80.43 | 80.36 | 80.28 | 80.21 | 79.85 | 79.45 | 79.09 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 31 |

PASS 3948 AT RESLUT, 63 715

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 132516 | 132534 | 132552 | 132608 | 132626 | 132644 | 132702 | 132720 |
| 1000 | 0.138 | 0.151 | 0.167 | 0.152 | 0.160 | 0.153 | 0.140 | 0.135 |
| 950 | 0.156 | 0.168 | 0.188 | 0.174 | 0.180 | 0.173 | 0.159 | 0.155 |
| 900 | 0.177 | 0.190 | 0.212 | 0.198 | 0.204 | 0.196 | 0.183 | 0.177 |
| 850 | 0.204 | 0.215 | 0.240 | 0.226 | 0.231 | 0.223 | 0.208 | 0.203 |
| 800 | 0.236 | 0.246 | 0.276 | 0.261 | 0.269 | 0.257 | 0.238 | 0.237 |
| 750 | 0.276 | 0.291 | 0.320 | 0.301 | 0.314 | 0.299 | 0.279 | 0.279 |
| 700 | 0.324 | 0.348 | 0.379 | 0.364 | 0.370 | 0.357 | 0.327 | 0.332 |
| 650 | 0.379 | 0.416 | 0.453 | 0.445 | 0.454 | 0.434 | 0.391 | 0.405 |
| 600 | 0.483 | 0.519 | 0.542 | 0.542 | 0.558 | 0.526 | 0.503 | 0.494 |
| 550 | 0.615 | 0.643 | 0.670 | 0.689 | 0.680 | 0.651 | 0.642 | 0.597 |
| 500 | 0.798 | 0.790 | 0.869 | 0.883 | 0.884 | 0.855 | 0.821 | 0.789 |
| 450 | 1.053 | 1.051 | 1.131 | 1.147 | 1.166 | 1.108 | 1.085 | 1.039 |
| 400 | 1.393 | 1.413 | 1.527 | 1.567 | 1.580 | 1.501 | 1.419 | 1.374 |
| 350 | 1.950 | 1.908 | 2.108 | 2.191 | 2.120 | 1.971 | 1.889 | 1.801 |
| 300 | 2.647 | 2.537 | 2.649 | | 2.661 | 2.450 | 2.532 | 2.342 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 393.6 | 456.7 | 428.2 | 383.0 | 419.1 | 407.0 | 399.3 | 378.8 |
| 900 | 373.5 | 401.9 | 398.3 | 371.6 | 385.6 | 384.5 | 376.3 | 355.7 |
| 850 | 350.7 | 368.0 | 369.8 | 352.9 | 356.2 | 357.9 | 357.5 | 336.6 |
| 800 | 327.6 | 336.2 | 345.0 | 328.0 | 331.8 | 332.8 | 335.6 | 315.3 |
| 750 | 307.3 | 311.2 | 320.2 | 303.2 | 307.5 | 307.6 | 310.0 | 294.0 |
| 700 | 287.0 | 286.2 | 298.0 | 281.4 | 283.7 | 286.2 | 284.5 | 275.2 |
| 650 | 266.6 | 261.9 | 277.5 | 260.1 | 265.4 | 266.5 | 259.9 | 260.0 |
| 600 | 239.1 | 246.4 | 256.9 | 238.8 | 247.1 | 246.9 | 239.0 | 244.7 |
| 550 | 211.5 | 230.9 | 233.5 | 219.7 | 228.8 | 226.5 | 218.0 | 229.5 |
| 500 | 192.5 | 215.4 | 206.4 | 201.3 | 204.3 | 204.6 | 199.6 | 209.2 |
| 450 | 181.6 | 191.4 | 182.1 | 181.8 | 177.6 | 183.1 | 190.8 | 188.4 |
| 400 | 169.2 | 169.7 | 167.0 | 160.1 | 173.9 | 185.4 | 182.6 | 185.7 |
| 350 | 154.0 | 175.6 | 237.8 | 239.4 | 222.0 | 213.4 | 177.1 | 196.7 |
| 300 | 374.8 | 236.5 | 595.7 | | 410.9 | 280.3 | 201.4 | 234.9 |
| LONG | -172.96 | -167.00 | -161.04 | -155.86 | -150.18 | -144.50 | -138.96 | -134.50 |
| LAT | 80.23 | 80.33 | 80.43 | 80.37 | 80.13 | 79.89 | 79.61 | 79.09 |
| QUAL | 32 | 32 | 22 | 22 | 22 | 21 | 22 | 22 |

PASS 3948 AT RESLUT, 63 715

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 132736 | 132754 | 132812 | 132848 | 132904 | 132922 | 132940 | 132958 |
| 1000 | 0.145 | 0.136 | 0.131 | 0.133 | 0.137 | 0.122 | 0.123 | 0.117 |
| 950 | 0.167 | 0.155 | 0.149 | 0.151 | 0.154 | 0.139 | 0.139 | 0.132 |
| 900 | 0.191 | 0.177 | 0.170 | 0.172 | 0.174 | 0.158 | 0.158 | 0.151 |
| 850 | 0.218 | 0.203 | 0.195 | 0.196 | 0.197 | 0.180 | 0.179 | 0.173 |
| 800 | 0.252 | 0.235 | 0.228 | 0.226 | 0.225 | 0.208 | 0.203 | 0.199 |
| 750 | 0.294 | 0.276 | 0.268 | 0.260 | 0.261 | 0.240 | 0.237 | 0.230 |
| 700 | 0.342 | 0.328 | 0.320 | 0.303 | 0.304 | 0.282 | 0.279 | 0.270 |
| 650 | 0.421 | 0.399 | 0.383 | 0.353 | 0.364 | 0.333 | 0.329 | 0.320 |
| 600 | 0.526 | 0.485 | 0.458 | 0.432 | 0.444 | 0.394 | 0.398 | 0.380 |
| 550 | 0.654 | 0.588 | 0.545 | 0.544 | 0.541 | 0.504 | 0.501 | 0.470 |
| 500 | 0.837 | 0.778 | 0.732 | 0.683 | 0.693 | 0.659 | 0.625 | 0.619 |
| 450 | 1.100 | 1.017 | 0.968 | 0.909 | 0.909 | 0.858 | 0.812 | 0.809 |
| 400 | 1.444 | 1.341 | 1.290 | 1.199 | 1.196 | 1.119 | 1.065 | 1.059 |
| 350 | 1.896 | 1.745 | 1.691 | 1.576 | 1.569 | 1.453 | 1.393 | 1.360 |
| 300 | 2.335 | 2.247 | 2.177 | 2.034 | 1.968 | 1.862 | 1.805 | 1.769 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 365.3 | 382.9 | 383.1 | 382.7 | 425.0 | 387.5 | 400.3 | 395.3 |
| 900 | 364.9 | 365.0 | 362.8 | 374.2 | 396.4 | 378.4 | 387.9 | 374.6 |
| 850 | 346.6 | 347.3 | 342.3 | 369.0 | 377.4 | 366.9 | 369.5 | 365.0 |
| 800 | 326.2 | 324.0 | 318.0 | 353.2 | 355.1 | 345.7 | 351.2 | 345.6 |
| 750 | 305.5 | 299.1 | 293.7 | 334.8 | 329.8 | 321.5 | 329.3 | 321.0 |
| 700 | 284.8 | 277.5 | 278.8 | 308.2 | 304.5 | 299.1 | 306.6 | 299.7 |
| 650 | 264.9 | 261.4 | 265.9 | 281.7 | 280.7 | 277.0 | 284.0 | 279.8 |
| 600 | 245.2 | 245.3 | 253.0 | 256.1 | 257.6 | 254.9 | 261.2 | 259.8 |
| 550 | 225.4 | 229.0 | 239.7 | 230.8 | 234.6 | 232.1 | 238.0 | 237.0 |
| 500 | 208.3 | 209.3 | 211.4 | 205.6 | 213.8 | 209.2 | 214.9 | 210.3 |
| 450 | 193.5 | 189.6 | 183.2 | 193.6 | 194.3 | 193.9 | 202.0 | 190.0 |
| 400 | 195.4 | 191.3 | 185.6 | 185.0 | 194.2 | 193.3 | 193.2 | 194.1 |
| 350 | 216.5 | 201.2 | 202.4 | 192.5 | 207.7 | 214.2 | 223.4 | 198.3 |
| 300 | 265.3 | 260.6 | 265.9 | 258.3 | 276.2 | 266.4 | 281.6 | 263.4 |
| LONG | -130.55 | -126.09 | -122.50 | -116.15 | -113.54 | -111.32 | -109.09 | -106.86 |
| LAT | 78.63 | 78.11 | 77.47 | 76.08 | 75.43 | 74.63 | 73.82 | 73.02 |
| QUAL | 21 | 22 | 21 | 22 | 21 | 22 | 21 | 22 |

PASS 3948 AT RESLUT, 63 715

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 133016 | 133032 | 133050 | 133108 | 133126 | 133144 | 133200 | 133218 |
| 1000 | 0.101 | 0.117 | 0.122 | 0.150 | 0.198 | 0.123 | 0.127 | 0.168 |
| 950 | 0.116 | 0.134 | 0.140 | 0.164 | 0.218 | 0.139 | 0.145 | 0.186 |
| 900 | 0.133 | 0.153 | 0.161 | 0.181 | 0.240 | 0.159 | 0.164 | 0.207 |
| 850 | 0.153 | 0.175 | 0.183 | 0.201 | 0.267 | 0.181 | 0.186 | 0.232 |
| 800 | 0.178 | 0.201 | 0.209 | 0.231 | 0.301 | 0.207 | 0.210 | 0.262 |
| 750 | 0.208 | 0.231 | 0.242 | 0.268 | 0.343 | 0.242 | 0.244 | 0.300 |
| 700 | 0.244 | 0.269 | 0.281 | 0.313 | 0.395 | 0.285 | 0.285 | 0.350 |
| 650 | 0.294 | 0.315 | 0.332 | 0.370 | 0.465 | 0.336 | 0.334 | 0.409 |
| 600 | 0.353 | 0.379 | 0.409 | 0.435 | 0.550 | 0.420 | 0.414 | 0.481 |
| 550 | 0.440 | 0.491 | 0.504 | 0.509 | 0.649 | 0.524 | 0.517 | 0.599 |
| 500 | 0.575 | 0.633 | 0.617 | 0.625 | 0.783 | 0.648 | 0.640 | 0.744 |
| 450 | 0.745 | 0.825 | 0.815 | 0.814 | 1.036 | 0.838 | 0.831 | 0.929 |
| 400 | 0.987 | 1.072 | 1.068 | 1.061 | 1.351 | 1.088 | 1.083 | 1.205 |
| 350 | 1.300 | 1.401 | 1.404 | 1.394 | 1.728 | 1.418 | 1.402 | 1.559 |
| 300 | 1.722 | 1.822 | 1.811 | 1.853 | 2.249 | 1.832 | 1.810 | 1.993 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 360.1 | 370.8 | 374.8 | 533.1 | 514.2 | 417.9 | 394.2 | 464.9 |
| 900 | 350.9 | 367.8 | 366.3 | 476.1 | 475.6 | 380.0 | 402.2 | 443.2 |
| 850 | 339.1 | 361.2 | 361.1 | 420.2 | 443.0 | 360.9 | 380.5 | 413.3 |
| 800 | 325.6 | 349.5 | 356.0 | 381.2 | 405.1 | 340.9 | 354.9 | 382.2 |
| 750 | 311.0 | 333.6 | 330.8 | 342.3 | 364.1 | 317.8 | 330.6 | 354.5 |
| 700 | 296.4 | 307.3 | 304.3 | 314.5 | 329.6 | 294.6 | 306.3 | 330.0 |
| 650 | 270.9 | 281.1 | 279.9 | 300.6 | 310.9 | 271.6 | 282.1 | 305.5 |
| 600 | 244.9 | 255.5 | 260.8 | 286.8 | 292.1 | 255.0 | 261.1 | 281.2 |
| 550 | 224.4 | 231.3 | 241.6 | 272.9 | 273.3 | 238.4 | 240.6 | 259.4 |
| 500 | 209.8 | 207.2 | 222.4 | 248.6 | 251.3 | 221.9 | 220.0 | 237.5 |
| 450 | 195.2 | 196.0 | 207.4 | 211.5 | 216.2 | 209.1 | 209.4 | 217.5 |
| 400 | 187.3 | 192.1 | 192.6 | 187.6 | 194.9 | 197.4 | 201.8 | 204.3 |
| 350 | 186.1 | 204.3 | 203.3 | 187.1 | 197.4 | 204.3 | 205.4 | 229.6 |
| 300 | 260.5 | 241.7 | 234.8 | 233.4 | 350.7 | 226.0 | 246.3 | 316.7 |
| LONG | -105.19 | -103.76 | -102.16 | -100.74 | -99.56 | -98.38 | -97.33 | -96.43 |
| LAT | 72.16 | 71.38 | 70.51 | 69.63 | 68.72 | 67.82 | 67.01 | 66.07 |
| QUAL | 22 | 33 | 22 | 32 | 33 | 33 | 31 | 32 |

PASS 3948 AT RESLUT, 63 715

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 133238 | 133254 | 133310 | 133328 | 133346 | 133404 | 133422 |
| 1000 | 0.176 | 0.178 | 0.236 | 0.226 | 0.219 | 0.213 | 0.196 |
| 950 | 0.193 | 0.197 | 0.254 | 0.240 | 0.242 | 0.230 | 0.216 |
| 900 | 0.213 | 0.220 | 0.278 | 0.257 | 0.263 | 0.248 | 0.236 |
| 850 | 0.237 | 0.246 | 0.306 | 0.282 | 0.289 | 0.271 | 0.260 |
| 800 | 0.266 | 0.278 | 0.347 | 0.313 | 0.319 | 0.299 | 0.288 |
| 750 | 0.300 | 0.319 | 0.404 | 0.353 | 0.358 | 0.342 | 0.325 |
| 700 | 0.339 | 0.370 | 0.474 | 0.417 | 0.417 | 0.410 | 0.385 |
| 650 | 0.396 | 0.437 | 0.553 | 0.496 | 0.490 | 0.495 | 0.461 |
| 600 | 0.494 | 0.517 | 0.643 | 0.589 | 0.580 | 0.598 | 0.553 |
| 550 | 0.617 | 0.611 | 0.744 | 0.722 | 0.700 | 0.723 | 0.665 |
| 500 | 0.775 | 0.757 | 0.856 | 0.903 | 0.842 | 0.869 | 0.794 |
| 450 | 0.980 | 0.976 | 1.078 | 1.131 | 1.036 | 1.068 | 0.951 |
| 400 | 1.243 | 1.252 | 1.390 | 1.429 | 1.348 | 1.377 | 1.250 |
| 350 | 1.581 | 1.593 | 1.731 | 1.771 | 1.725 | 1.750 | 1.628 |
| 300 | 1.975 | 2.010 | | | 2.134 | 2.054 | 2.054 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 516.3 | 481.5 | 593.7 | 737.6 | 574.7 | 643.6 | 536.1 |
| 900 | 486.0 | 444.6 | 524.0 | 605.4 | 543.7 | 570.9 | 525.3 |
| 850 | 449.6 | 417.6 | 454.4 | 531.4 | 495.5 | 503.0 | 475.3 |
| 800 | 412.8 | 385.1 | 405.6 | 457.5 | 447.4 | 435.1 | 425.1 |
| 750 | 377.9 | 348.9 | 369.0 | 391.6 | 402.8 | 383.1 | 380.5 |
| 700 | 342.9 | 319.8 | 332.5 | 356.1 | 363.8 | 346.0 | 348.3 |
| 650 | 308.9 | 303.1 | 318.6 | 320.5 | 324.9 | 308.9 | 316.1 |
| 600 | 276.8 | 286.5 | 307.9 | 285.0 | 291.9 | 275.6 | 285.2 |
| 550 | 244.7 | 269.8 | 297.2 | 257.7 | 272.1 | 262.4 | 270.1 |
| 500 | 224.4 | 247.0 | 286.5 | 235.8 | 252.4 | 249.1 | 255.0 |
| 450 | 218.9 | 218.5 | 252.0 | 225.2 | 233.9 | 235.1 | 239.1 |
| 400 | 213.4 | 207.6 | 221.5 | 228.6 | 217.9 | 220.0 | 215.1 |
| 350 | 235.0 | 213.7 | 302.5 | 317.0 | 228.0 | 312.2 | 222.4 |
| 300 | 286.1 | 327.7 | | | 280.4 | 632.7 | 319.9 |
| LONG | -95.53 | -94.63 | -93.94 | -93.23 | -92.53 | -91.85 | -91.29 |
| LAT | 65.14 | 64.20 | 63.36 | 62.41 | 61.46 | 60.51 | 59.54 |
| QUAL | 31 | 31 | 31 | 32 | 21 | 31 | 21 |

PASS 3948 AT QUITOE, 63 715

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 134820 | 134855 | 134930 | 135006 | 135041 | 135116 | 135151 | 135226 |
| 1000 | 0.171 | 0.173 | 0.175 | 0.176 | 0.170 | 0.158 | 0.157 | 0.175 |
| 950 | 0.191 | 0.194 | 0.197 | 0.197 | 0.191 | 0.177 | 0.174 | 0.192 |
| 900 | 0.216 | 0.218 | 0.222 | 0.220 | 0.215 | 0.199 | 0.196 | 0.212 |
| 850 | 0.243 | 0.245 | 0.251 | 0.247 | 0.240 | 0.222 | 0.220 | 0.234 |
| 800 | 0.273 | 0.278 | 0.284 | 0.277 | 0.270 | 0.250 | 0.247 | 0.262 |
| 750 | 0.312 | 0.319 | 0.325 | 0.315 | 0.305 | 0.284 | 0.279 | 0.295 |
| 700 | 0.362 | 0.367 | 0.374 | 0.360 | 0.350 | 0.326 | 0.316 | 0.332 |
| 650 | 0.420 | 0.431 | 0.435 | 0.417 | 0.406 | 0.375 | 0.363 | 0.375 |
| 600 | 0.499 | 0.507 | 0.507 | 0.485 | 0.475 | 0.438 | 0.417 | 0.446 |
| 550 | 0.616 | 0.618 | 0.609 | 0.586 | 0.577 | 0.521 | 0.522 | 0.541 |
| 500 | 0.776 | 0.767 | 0.767 | 0.723 | 0.703 | 0.656 | 0.666 | 0.743 |
| 450 | 1.033 | 1.021 | 1.013 | 0.966 | 0.936 | 0.837 | 0.898 | 1.118 |
| 400 | 1.492 | 1.449 | 1.438 | | 1.326 | 1.229 | 1.442 | 1.984 |
| 350 | 2.104 | 2.042 | | | | | 2.747 | 3.316 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 432.6 | 441.7 | 420.2 | 444.6 | 438.9 | 439.4 | 451.4 | 509.2 |
| 900 | 412.0 | 418.5 | 409.6 | 436.5 | 428.6 | 433.6 | 430.3 | 479.5 |
| 850 | 398.6 | 401.1 | 401.9 | 427.4 | 426.3 | 419.5 | 428.5 | 451.6 |
| 800 | 385.2 | 382.2 | 392.1 | 416.1 | 407.1 | 402.7 | 416.9 | 430.1 |
| 750 | 364.0 | 360.8 | 363.7 | 379.4 | 380.9 | 385.1 | 400.3 | 408.7 |
| 700 | 337.8 | 339.4 | 341.1 | 348.3 | 353.2 | 365.1 | 373.5 | 387.2 |
| 650 | 311.6 | 311.3 | 325.5 | 325.2 | 324.6 | 345.0 | 331.8 | 365.8 |
| 600 | 280.1 | 281.9 | 304.7 | 302.1 | 295.2 | 299.7 | 290.1 | 297.7 |
| 550 | 241.3 | 246.6 | 244.5 | 260.8 | 257.9 | 253.2 | 247.6 | 214.8 |
| 500 | 201.4 | 208.7 | 206.5 | 213.5 | 220.6 | 217.6 | 204.9 | 158.4 |
| 450 | 159.6 | 166.7 | 167.6 | 167.0 | 171.5 | 181.0 | 151.9 | 101.9 |
| 400 | 139.3 | 141.8 | 139.3 | | 112.8 | 115.3 | 88.8 | 92.4 |
| 350 | 161.9 | 158.4 | | | | | 95.1 | 107.9 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -80.48 | -80.28 | -80.08 | -79.89 | -79.70 | -79.52 | -79.34 | -79.15 |
| LAT | 13.16 | 11.19 | 9.22 | 7.19 | 5.22 | 3.25 | 1.28 | -0.69 |
| QUAL | 13 | 13 | 13 | 13 | 23 | 23 | 13 | 13 |

PASS 3948 AT QUITOE, 63 715

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 135302 | 135337 | 135412 | 135447 | 135522 | 135557 | 135633 | 135707 |
| 1000 | 0.160 | 0.160 | 0.161 | 0.148 | 0.142 | 0.150 | 0.134 | 0.151 |
| 950 | 0.177 | 0.176 | 0.175 | 0.161 | 0.156 | 0.164 | 0.144 | 0.166 |
| 900 | 0.196 | 0.194 | 0.190 | 0.175 | 0.171 | 0.180 | 0.156 | 0.179 |
| 850 | 0.216 | 0.213 | 0.209 | 0.192 | 0.189 | 0.198 | 0.172 | 0.192 |
| 800 | 0.239 | 0.235 | 0.231 | 0.213 | 0.210 | 0.218 | 0.192 | 0.208 |
| 750 | 0.267 | 0.260 | 0.258 | 0.238 | 0.235 | 0.243 | 0.216 | 0.231 |
| 700 | 0.301 | 0.299 | 0.297 | 0.273 | 0.266 | 0.271 | 0.243 | 0.257 |
| 650 | 0.349 | 0.346 | 0.354 | 0.318 | 0.311 | 0.304 | 0.271 | 0.282 |
| 600 | 0.409 | 0.428 | 0.431 | 0.381 | 0.369 | 0.353 | 0.303 | 0.315 |
| 550 | 0.507 | 0.537 | 0.531 | 0.470 | 0.453 | 0.425 | 0.362 | 0.371 |
| 500 | 0.709 | 0.697 | 0.736 | 0.603 | 0.629 | 0.590 | 0.491 | 0.494 |
| 450 | 1.052 | 0.987 | 1.207 | 1.009 | 1.143 | 0.994 | 0.763 | 0.748 |
| 400 | 1.788 | 2.056 | 2.456 | 2.058 | 2.214 | 1.926 | 1.428 | 1.357 |
| 350 | 3.610 | 3.877 | 3.950 | 3.555 | 3.639 | 3.337 | 2.719 | 2.627 |
| 300 | | | | | | | | 4.409 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 496.3 | 516.3 | 584.9 | 585.4 | 511.9 | 548.8 | 611.9 | |
| 900 | 501.0 | 512.6 | 547.4 | 539.0 | 505.4 | 537.5 | 556.6 | 644.5 |
| 850 | 496.1 | 495.6 | 508.7 | 499.3 | 487.7 | 509.2 | 506.0 | 607.9 |
| 800 | 470.0 | 461.9 | 470.0 | 461.1 | 462.4 | 471.6 | 477.8 | 576.0 |
| 750 | 418.3 | 427.9 | 412.4 | 422.2 | 411.8 | 444.9 | 449.5 | 548.4 |
| 700 | 364.3 | 364.0 | 324.6 | 364.0 | 366.1 | 418.1 | 424.3 | 519.5 |
| 650 | 325.5 | 300.0 | 284.7 | 308.0 | 327.6 | 391.3 | 400.2 | 478.7 |
| 600 | 286.7 | 247.0 | 249.2 | 265.1 | 275.9 | 324.4 | 371.1 | 381.3 |
| 550 | 198.3 | 206.2 | 202.5 | 216.5 | 203.1 | 230.0 | 230.2 | 260.7 |
| 500 | 142.1 | 168.6 | 140.8 | 160.3 | 127.2 | 112.2 | 141.8 | 152.6 |
| 450 | 117.0 | 116.2 | 79.9 | 81.3 | 78.4 | 84.9 | 97.7 | 107.0 |
| 400 | 76.6 | 61.2 | 81.1 | 77.5 | 86.7 | 79.3 | 76.3 | 74.2 |
| 350 | 91.7 | 131.0 | 157.1 | 132.8 | 139.3 | 121.2 | 84.8 | 84.4 |
| 300 | | | | | | | | 119.2 |
| LONG | -78.96 | -78.78 | -78.59 | -78.40 | -78.21 | -78.02 | -77.81 | -77.61 |
| LAT | -2.71 | -4.68 | -6.65 | -8.62 | -10.59 | -12.56 | -14.58 | -16.49 |
| QUAL | 13 | 23 | 23 | 32 | 32 | 22 | 23 | 33 |

PASS 3948 AT AGASTA, 63 715

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 135820 | 135913 | 135948 | 140006 | 140041 | 140058 | 140337 | 140412 |
| 1000 | 0.175 | 0.142 | 0.123 | 0.138 | 0.151 | 0.123 | 0.122 | 0.113 |
| 950 | 0.191 | 0.156 | 0.134 | 0.148 | 0.162 | 0.135 | 0.126 | 0.118 |
| 900 | 0.209 | 0.172 | 0.149 | 0.162 | 0.174 | 0.148 | 0.130 | 0.125 |
| 850 | 0.229 | 0.190 | 0.167 | 0.180 | 0.186 | 0.160 | 0.135 | 0.134 |
| 800 | 0.251 | 0.209 | 0.190 | 0.202 | 0.201 | 0.175 | 0.142 | 0.139 |
| 750 | 0.276 | 0.232 | 0.216 | 0.227 | 0.218 | 0.193 | 0.151 | 0.146 |
| 700 | 0.304 | 0.257 | 0.246 | 0.253 | 0.239 | 0.214 | 0.163 | 0.157 |
| 650 | 0.335 | 0.288 | 0.279 | 0.284 | 0.264 | 0.239 | 0.181 | 0.173 |
| 600 | 0.367 | 0.323 | 0.314 | 0.321 | 0.305 | 0.267 | 0.208 | 0.194 |
| 550 | 0.409 | 0.369 | 0.355 | 0.364 | 0.358 | 0.309 | 0.247 | 0.233 |
| 500 | 0.484 | 0.429 | 0.418 | 0.457 | 0.458 | 0.383 | 0.335 | 0.292 |
| 450 | 0.692 | 0.565 | 0.542 | 0.604 | 0.594 | 0.514 | 0.452 | 0.404 |
| 400 | 1.101 | 0.815 | 0.835 | 0.890 | 0.820 | 0.745 | 0.586 | 0.558 |
| 350 | 1.694 | 1.304 | 1.298 | 1.296 | 1.208 | 1.067 | 0.846 | 0.810 |
| 300 | 2.900 | 2.179 | 1.869 | 1.893 | 1.798 | 1.578 | 1.498 | 1.319 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 554.6 | 522.8 | 543.2 | 634.9 | 684.5 | 554.5 | 1517.0 | 1026.7 |
| 900 | 550.1 | 516.9 | 493.5 | 593.4 | 685.8 | 553.2 | 1340.9 | 1050.8 |
| 850 | 542.0 | 509.6 | 443.8 | 551.9 | 681.7 | 552.0 | 1078.9 | 1074.9 |
| 800 | 533.8 | 501.8 | 422.9 | 510.4 | 634.8 | 533.1 | 943.9 | 1158.1 |
| 750 | 533.5 | 481.3 | 421.2 | 474.2 | 583.6 | 505.3 | 808.9 | 870.0 |
| 700 | 535.1 | 457.8 | 419.4 | 446.1 | 504.0 | 476.2 | 609.5 | 624.2 |
| 650 | 527.9 | 432.9 | 415.2 | 409.6 | 424.7 | 427.0 | 425.9 | 487.6 |
| 600 | 492.9 | 408.1 | 404.2 | 361.8 | 346.3 | 377.7 | 336.3 | 373.4 |
| 550 | 399.9 | 353.5 | 352.9 | 314.0 | 267.9 | 316.1 | 228.9 | 278.0 |
| 500 | 190.5 | 274.0 | 251.6 | 235.6 | 227.4 | 230.4 | 178.8 | 189.3 |
| 450 | 122.3 | 140.4 | 168.4 | 162.0 | 189.4 | 166.5 | 160.8 | 171.5 |
| 400 | 113.4 | 123.0 | 134.6 | 146.1 | 157.9 | 136.7 | 152.4 | 153.8 |
| 350 | 106.0 | 108.5 | 119.1 | 131.3 | 134.1 | 133.2 | 130.5 | 129.2 |
| 300 | 82.1 | 91.5 | 114.5 | 115.4 | 117.4 | 119.9 | 97.6 | 96.2 |
| LONG | -77.15 | -76.79 | -76.54 | -76.40 | -76.13 | -76.00 | -74.48 | -74.08 |
| LAT | -20.58 | -23.56 | -25.52 | -26.53 | -28.49 | -29.44 | -38.31 | -40.26 |
| QUAL | 32 | 33 | 33 | 33 | 32 | 33 | 33 | 33 |

PASS 3961 AT RESLUT, 63 716

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 121720 | 121738 | 121830 | 121848 | 121906 | 121924 | 121942 | 121958 |
| 1000 | 0.160 | 0.163 | 0.175 | 0.161 | 0.174 | 0.144 | 0.162 | 0.154 |
| 950 | 0.178 | 0.181 | 0.197 | 0.179 | 0.194 | 0.165 | 0.183 | 0.173 |
| 900 | 0.199 | 0.202 | 0.220 | 0.199 | 0.218 | 0.188 | 0.204 | 0.196 |
| 850 | 0.225 | 0.226 | 0.246 | 0.222 | 0.242 | 0.210 | 0.227 | 0.222 |
| 800 | 0.262 | 0.257 | 0.279 | 0.249 | 0.272 | 0.236 | 0.254 | 0.252 |
| 750 | 0.307 | 0.295 | 0.318 | 0.285 | 0.306 | 0.264 | 0.290 | 0.288 |
| 700 | 0.360 | 0.345 | 0.376 | 0.328 | 0.358 | 0.313 | 0.335 | 0.330 |
| 650 | 0.422 | 0.403 | 0.458 | 0.392 | 0.431 | 0.376 | 0.393 | 0.394 |
| 600 | 0.492 | 0.493 | 0.557 | 0.487 | 0.520 | 0.457 | 0.484 | 0.485 |
| 550 | 0.588 | 0.624 | 0.692 | 0.606 | 0.645 | 0.572 | 0.595 | 0.597 |
| 500 | 0.769 | 0.783 | 0.883 | 0.755 | 0.795 | 0.712 | 0.738 | 0.742 |
| 450 | 0.994 | 0.999 | 1.116 | 0.946 | 0.988 | 0.892 | 0.936 | 0.934 |
| 400 | 1.257 | 1.260 | 1.403 | 1.171 | 1.243 | 1.130 | 1.174 | 1.161 |
| 350 | 1.574 | 1.565 | 1.717 | 1.448 | 1.515 | 1.414 | 1.447 | 1.447 |
| 300 | 1.932 | 1.849 | | 1.739 | | 1.741 | 1.724 | 1.658 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 466.4 | 466.4 | 441.2 | 472.0 | 470.1 | | 459.3 | 409.3 |
| 900 | 416.7 | 442.0 | 427.5 | 468.2 | 454.1 | 414.5 | 462.5 | 402.6 |
| 850 | 373.6 | 409.8 | 400.0 | 430.6 | 432.1 | 418.4 | 434.0 | 392.0 |
| 800 | 347.8 | 368.7 | 368.1 | 388.2 | 397.8 | 387.5 | 399.2 | 378.3 |
| 750 | 321.9 | 337.9 | 336.3 | 352.7 | 363.4 | 356.7 | 362.4 | 345.8 |
| 700 | 305.7 | 311.8 | 307.9 | 317.2 | 327.8 | 319.7 | 325.7 | 313.3 |
| 650 | 291.3 | 285.6 | 281.5 | 289.2 | 291.7 | 282.5 | 293.4 | 290.1 |
| 600 | 276.8 | 262.3 | 255.1 | 268.2 | 257.1 | 251.8 | 271.4 | 270.6 |
| 550 | 259.2 | 240.9 | 235.9 | 247.1 | 248.0 | 242.2 | 249.4 | 251.1 |
| 500 | 230.8 | 219.5 | 225.6 | 235.6 | 238.9 | 232.6 | 234.7 | 238.9 |
| 450 | 205.9 | 222.4 | 222.6 | 237.6 | 239.0 | 226.6 | 235.3 | 236.5 |
| 400 | 204.8 | 226.2 | 240.8 | 239.7 | 249.9 | 225.4 | 235.8 | 234.0 |
| 350 | 254.3 | 287.8 | 472.8 | 254.7 | 410.0 | 235.7 | 289.1 | 326.0 |
| 300 | 1147.0 | 403.3 | | 553.5 | | 395.5 | 389.5 | 581.9 |
| LONG | -153.30 | -147.29 | -130.74 | -125.22 | -120.13 | -115.90 | -111.68 | -107.92 |
| LAT | 80.32 | 80.37 | 79.93 | 79.64 | 79.25 | 78.70 | 78.14 | 77.65 |
| QUAL | 21 | 21 | 21 | 22 | 21 | 22 | 21 | 21 |

PASS 3961 AT RESLUT, 63 716

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 122016 | 122034 | 122052 | 122110 | 122126 | 122142 | 122158 | 122220 |
| 1000 | 0.179 | 0.179 | 0.187 | 0.205 | 0.203 | 0.219 | [illegible] | 0.205 |
| 950 | 0.197 | 0.195 | 0.206 | 0.222 | 0.221 | 0.234 | [illegible] | 0.220 |
| 900 | 0.217 | 0.211 | 0.228 | 0.241 | 0.241 | 0.253 | [illegible] | 0.237 |
| 850 | 0.241 | 0.231 | 0.251 | 0.266 | 0.265 | 0.280 | [illegible] | 0.257 |
| 800 | 0.269 | 0.255 | 0.281 | 0.296 | 0.294 | 0.313 | [illegible] | 0.283 |
| 750 | 0.306 | 0.296 | 0.318 | 0.338 | 0.331 | 0.352 | [illegible] | 0.314 |
| 700 | 0.352 | 0.363 | 0.364 | 0.397 | 0.382 | 0.397 | [illegible] | 0.351 |
| 650 | 0.406 | 0.449 | 0.440 | 0.470 | 0.443 | 0.465 | [illegible] | 0.408 |
| 600 | 0.498 | 0.550 | 0.535 | 0.559 | 0.521 | 0.577 | [illegible] | 0.488 |
| 550 | 0.624 | 0.664 | 0.650 | 0.698 | 0.641 | 0.717 | [illegible] | 0.587 |
| 500 | 0.781 | 0.792 | 0.810 | 0.868 | 0.789 | 0.892 | [illegible] | 0.704 |
| 450 | 0.979 | 0.973 | 1.023 | 1.076 | 1.014 | 1.114 | [illegible] | 0.884 |
| 400 | 1.213 | 1.260 | 1.265 | 1.368 | 1.289 | 1.378 | 1.228 | 1.111 |
| 350 | 1.444 | 1.581 | 1.504 | 1.645 | 1.492 | 1.620 | 1.492 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 510.5 | 606.9 | 502.5 | 599.5 | 583.2 | 662.4 | [illegible] | 673.8 |
| 900 | 485.7 | 551.1 | 486.2 | 538.8 | 537.2 | 564.9 | 541.3 | 615.5 |
| 850 | 450.8 | 484.7 | 458.9 | 477.1 | 488.5 | 492.1 | 435.6 | 554.7 |
| 800 | 411.6 | 418.2 | 415.5 | 415.3 | 439.6 | 434.2 | 453.1 | 497.3 |
| 750 | 374.7 | 363.7 | 369.0 | 369.3 | 397.6 | 392.7 | [illegible] | 442.8 |
| 700 | 338.5 | 319.3 | 327.9 | 336.4 | 363.1 | 351.3 | 488.3 | 388.3 |
| 650 | 302.2 | 274.8 | 304.8 | 303.5 | 328.5 | 315.3 | [illegible] | 350.2 |
| 600 | 275.2 | 255.8 | 281.6 | 272.2 | 294.1 | 286.4 | 356.9 | 321.5 |
| 550 | 250.5 | 251.6 | 258.4 | 256.9 | 260.0 | 257.5 | 234.1 | 292.9 |
| 500 | 232.0 | 247.3 | 247.4 | 241.7 | 225.9 | 238.9 | 227.9 | 264.3 |
| 450 | 249.2 | 237.6 | 244.7 | 236.8 | 221.2 | 240.0 | [illegible] | 272.2 |
| 400 | 266.4 | 219.7 | 282.8 | 277.6 | 338.3 | 311.8 | 264.7 | 289.3 |
| 350 | 311.7 | 606.0 | 397.5 | 399.1 | 966.7 | 773.5 | [illegible] | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -104.79 | -101.79 | -98.80 | -96.30 | -94.43 | -92.56 | [illegible] | -88.76 |
| LAT | 76.95 | 76.23 | 75.51 | 74.74 | 74.01 | 73.29 | 72.56 | 71.50 |
| QUAL | 21 | 21 | 21 | 22 | 22 | 22 | 21 | 21 |

PASS 3961 AT RESLUT, 63 716

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 122238 | 122255 | 122312 | 122330 | 122349 | 122406 | 122423 | 122441 |
| 1000 | 0.222 | 0.250 | 0.241 | 0.231 | 0.260 | 0.231 | 0.276 | 0.253 |
| 950 | 0.233 | 0.261 | 0.255 | 0.248 | 0.279 | 0.247 | 0.299 | 0.275 |
| 900 | 0.248 | 0.277 | 0.273 | 0.265 | 0.302 | 0.263 | 0.327 | 0.299 |
| 850 | 0.269 | 0.304 | 0.296 | 0.285 | 0.327 | 0.283 | 0.358 | 0.328 |
| 800 | 0.298 | 0.350 | 0.325 | 0.311 | 0.356 | 0.307 | 0.397 | 0.360 |
| 750 | 0.336 | 0.402 | 0.363 | 0.347 | 0.389 | 0.335 | 0.443 | 0.396 |
| 700 | 0.385 | 0.449 | 0.415 | 0.390 | 0.426 | 0.369 | 0.496 | 0.435 |
| 650 | 0.445 | 0.497 | 0.479 | 0.440 | 0.467 | 0.412 | 0.559 | 0.476 |
| 600 | 0.520 | 0.575 | 0.554 | 0.497 | 0.518 | 0.463 | 0.631 | 0.541 |
| 550 | 0.617 | 0.684 | 0.654 | 0.560 | 0.581 | 0.521 | 0.711 | 0.623 |
| 500 | 0.762 | 0.815 | 0.772 | 0.630 | 0.676 | 0.595 | 0.847 | 0.720 |
| 450 | 0.947 | 0.990 | 0.908 | 0.749 | 0.801 | 0.749 | 1.017 | 0.913 |
| 400 | 1.137 | 1.193 | 1.127 | 0.957 | 0.993 | 0.938 | 1.281 | 1.170 |
| 350 | | 1.358 | | 1.177 | 1.321 | 1.067 | 1.718 | 1.565 |
| 300 | | | | 1.353 | 1.699 | 1.171 | 2.510 | 2.057 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 900.1 | 975.2 | 776.6 | 719.6 | 671.6 | 761.8 | 589.5 | 586.3 |
| 900 | 702.3 | 747.7 | 653.7 | 673.5 | 636.9 | 711.4 | 543.6 | 569.4 |
| 850 | 661.0 | 578.6 | 580.3 | 607.2 | 603.5 | 653.6 | 505.5 | 549.9 |
| 800 | 499.7 | 466.8 | 506.8 | 539.0 | 575.4 | 593.7 | 480.3 | 532.6 |
| 750 | 431.3 | 404.7 | 445.5 | 467.9 | 550.5 | 529.4 | 457.2 | 509.1 |
| 700 | 393.9 | 397.7 | 407.4 | 414.3 | 530.1 | 474.6 | 433.7 | 480.1 |
| 650 | 356.5 | 390.8 | 369.2 | 396.5 | 509.6 | 440.3 | 406.8 | 451.1 |
| 600 | 314.7 | 343.5 | 332.8 | 378.7 | 453.1 | 406.0 | 380.0 | 399.4 |
| 550 | 267.6 | 289.2 | 315.1 | 360.9 | 375.8 | 371.8 | 353.1 | 345.4 |
| 500 | 247.7 | 272.3 | 297.4 | 343.1 | 324.5 | 340.3 | 305.6 | 291.4 |
| 450 | 260.9 | 266.5 | 279.8 | 315.1 | 276.7 | 326.1 | 257.1 | 244.5 |
| 400 | 347.9 | 351.5 | 364.0 | 273.3 | 224.0 | 313.6 | 208.6 | 198.0 |
| 350 | | 586.1 | | 324.4 | 185.2 | 455.7 | 159.9 | 196.1 |
| 300 | | | | 558.7 | 430.7 | 609.0 | 171.6 | 230.3 |
| LONG | -87.24 | -85.80 | -84.63 | -83.50 | -82.31 | -81.33 | -80.52 | -79.65 |
| LAT | 70.62 | 69.79 | 68.94 | 68.02 | 67.06 | 66.19 | 65.30 | 64.37 |
| QUAL | 21 | 22 | 21 | 21 | 33 | 31 | 32 | 32 |

PASS 3961 AT RESLUT, 63 716

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 122517 | 122535 | 122550 | 122608 | 122626 |
| 1000 | 0.276 | 0.250 | 0.223 | 0.231 | 0.174 |
| 950 | 0.300 | 0.264 | 0.238 | 0.247 | 0.194 |
| 900 | 0.323 | 0.283 | 0.257 | 0.266 | 0.217 |
| 850 | 0.352 | 0.307 | 0.285 | 0.294 | 0.244 |
| 800 | 0.385 | 0.345 | 0.321 | 0.328 | 0.275 |
| 750 | 0.432 | 0.395 | 0.365 | 0.370 | 0.315 |
| 700 | 0.500 | 0.453 | 0.413 | 0.418 | 0.362 |
| 650 | 0.584 | 0.518 | 0.468 | 0.474 | 0.433 |
| 600 | 0.686 | 0.590 | 0.536 | 0.536 | 0.526 |
| 550 | 0.816 | 0.671 | 0.654 | 0.643 | 0.639 |
| 500 | 0.969 | 0.789 | 0.800 | 0.787 | 0.787 |
| 450 | 1.160 | 0.998 | 0.989 | 0.977 | 0.999 |
| 400 | 1.486 | 1.273 | 1.238 | 1.257 | 1.260 |
| 350 | 1.913 | 1.648 | 1.567 | 1.655 | 1.626 |
| 300 | | 2.185 | 2.095 | 2.209 | 2.087 |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | 632.3 | 756.7 | 672.7 | 683.6 | 451.5 |
| 900 | 604.1 | 646.9 | 562.7 | 570.5 | 436.5 |
| 850 | 538.8 | 539.4 | 495.8 | 506.3 | 410.8 |
| 800 | 473.5 | 473.0 | 440.4 | 442.1 | 382.0 |
| 750 | 424.6 | 406.6 | 398.9 | 412.3 | 348.5 |
| 700 | 387.6 | 368.9 | 374.9 | 389.9 | 315.0 |
| 650 | 350.6 | 354.2 | 350.8 | 367.6 | 294.5 |
| 600 | 315.3 | 339.5 | 325.2 | 345.2 | 276.3 |
| 550 | 294.2 | 324.8 | 292.8 | 305.2 | 258.2 |
| 500 | 273.0 | 295.7 | 260.4 | 260.0 | 240.6 |
| 450 | 250.5 | 239.5 | 234.8 | 221.8 | 223.9 |
| 400 | 221.6 | 201.3 | 217.6 | 197.9 | 209.2 |
| 350 | 306.8 | 188.4 | 211.1 | 184.8 | 205.3 |
| 300 | | 168.0 | 234.1 | 241.6 | 256.9 |
| LONG | -78.10 | -77.42 | -76.86 | -76.24 | -75.69 |
| LAT | 62.48 | 61.52 | 60.73 | 59.77 | 58.80 |
| QUAL | 21 | 32 | 21 | 32 | 22 |

PASS 3961 AT QUITOE, 63 716

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 124021 | 124056 | 124132 | 124207 | 124242 | 124317 | 124353 | 124428 |
| 1000 | 0.135 | 0.140 | 0.141 | 0.148 | 0.151 | 0.153 | 0.161 | 0.171 |
| 950 | 0.151 | 0.156 | 0.157 | 0.163 | 0.169 | 0.169 | 0.178 | 0.190 |
| 900 | 0.169 | 0.176 | 0.176 | 0.183 | 0.189 | 0.188 | 0.201 | 0.212 |
| 850 | 0.190 | 0.197 | 0.198 | 0.205 | 0.213 | 0.211 | 0.226 | 0.236 |
| 800 | 0.215 | 0.224 | 0.225 | 0.231 | 0.239 | 0.238 | 0.256 | 0.265 |
| 750 | 0.248 | 0.258 | 0.258 | 0.265 | 0.276 | 0.278 | 0.295 | 0.302 |
| 700 | 0.286 | 0.299 | 0.300 | 0.308 | 0.322 | 0.326 | 0.340 | 0.351 |
| 650 | 0.335 | 0.353 | 0.353 | 0.361 | 0.381 | 0.386 | 0.397 | 0.422 |
| 600 | 0.399 | 0.418 | 0.414 | 0.425 | 0.456 | 0.460 | 0.480 | 0.521 |
| 550 | 0.493 | 0.510 | 0.515 | 0.525 | 0.575 | 0.583 | 0.615 | 0.681 |
| 500 | 0.629 | 0.651 | 0.671 | 0.695 | 0.738 | 0.767 | 0.862 | 0.933 |
| 450 | 0.871 | 0.892 | 0.918 | 0.965 | 1.018 | 1.126 | 1.321 | 1.441 |
| 400 | 1.282 | 1.301 | 1.321 | 1.399 | 1.544 | 1.882 | 2.173 | 2.501 |
| 350 | 1.877 | 1.909 | 1.968 | 2.051 | 2.421 | 3.090 | 3.585 | |
| 300 | 2.750 | 2.806 | | 2.860 | 3.503 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 433.4 | 436.0 | 446.7 | 514.3 | 437.9 | 461.8 | 465.2 | 462.0 |
| 900 | 422.6 | 415.7 | 421.4 | 448.0 | 419.7 | 432.8 | 423.3 | 448.3 |
| 850 | 401.7 | 397.2 | 402.3 | 424.7 | 402.6 | 404.8 | 401.0 | 434.7 |
| 800 | 380.6 | 375.9 | 376.6 | 393.7 | 385.5 | 376.5 | 381.6 | 402.8 |
| 750 | 359.4 | 351.6 | 347.2 | 353.7 | 354.0 | 346.9 | 365.4 | 356.1 |
| 700 | 338.2 | 327.3 | 322.7 | 325.5 | 321.6 | 317.2 | 349.1 | 310.4 |
| 650 | 306.9 | 303.1 | 301.4 | 304.6 | 284.7 | 283.3 | 294.8 | 265.6 |
| 600 | 265.9 | 278.8 | 280.2 | 279.2 | 245.1 | 247.0 | 233.8 | 223.1 |
| 550 | 226.2 | 235.5 | 217.0 | 209.2 | 216.0 | 208.9 | 181.5 | 185.5 |
| 500 | 186.5 | 184.6 | 179.1 | 174.2 | 188.8 | 169.9 | 144.0 | 142.2 |
| 450 | 142.7 | 148.7 | 152.5 | 147.7 | 146.1 | 115.7 | 107.5 | 99.2 |
| 400 | 130.9 | 132.6 | 132.8 | 134.0 | 115.1 | 96.0 | 96.3 | 92.7 |
| 350 | 131.0 | 128.1 | 128.3 | 138.0 | 120.4 | 119.5 | 131.4 | |
| 300 | 134.8 | 143.5 | | 194.1 | 208.8 | | | |
| LONG | -65.25 | -65.05 | -64.85 | -64.66 | -64.48 | -64.29 | -64.11 | -63.93 |
| LAT | 12.55 | 10.58 | 8.23 | 6.05 | 4.42 | 2.63 | 0.60 | -1.36 |
| QUAL | 23 | 23 | 13 | 11 | 11 | 23 | 23 | 33 |

PASS 3961 AT QUITOE, 63 716

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 124503 | 124538 | 124613 | 124649 | 124759 | 124834 | 124909 |
| 1000 | 0.173 | 0.165 | 0.179 | 0.190 | 0.185 | 0.180 | 0.199 |
| 950 | 0.189 | 0.184 | 0.202 | 0.211 | 0.207 | 0.201 | 0.219 |
| 900 | 0.208 | 0.207 | 0.230 | 0.235 | 0.230 | 0.225 | 0.241 |
| 850 | 0.234 | 0.234 | 0.260 | 0.263 | 0.256 | 0.248 | 0.265 |
| 800 | 0.274 | 0.264 | 0.293 | 0.295 | 0.286 | 0.273 | 0.294 |
| 750 | 0.324 | 0.307 | 0.335 | 0.334 | 0.320 | 0.303 | 0.328 |
| 700 | 0.385 | 0.363 | 0.385 | 0.380 | 0.362 | 0.340 | 0.369 |
| 650 | 0.456 | 0.432 | 0.449 | 0.444 | 0.422 | 0.396 | 0.429 |
| 600 | 0.556 | 0.529 | 0.541 | 0.537 | 0.516 | 0.475 | 0.502 |
| 550 | 0.733 | 0.686 | 0.706 | 0.694 | 0.669 | 0.575 | 0.619 |
| 500 | 1.000 | 0.959 | 1.012 | 0.983 | 0.960 | 0.813 | 0.825 |
| 450 | 1.617 | 1.541 | 1.665 | 1.637 | 1.508 | 1.327 | 1.273 |
| 400 | 2.720 | 2.599 | 2.699 | 2.782 | 2.461 | 2.264 | 2.248 |
| 350 | 4.256 | 4.104 | 3.935 | 3.970 | 3.730 | 3.692 | 3.768 |
| 300 | | | | | | 4.932 | 5.085 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 519.6 | 439.8 | 407.2 | 466.1 | 447.2 | 451.7 | 517.3 |
| 900 | 447.6 | 409.2 | 397.6 | 450.5 | 454.4 | 479.7 | 504.1 |
| 850 | 386.0 | 387.7 | 396.1 | 432.6 | 450.3 | 500.0 | 487.1 |
| 800 | 353.8 | 366.3 | 394.6 | 416.0 | 438.8 | 486.4 | 454.3 |
| 750 | 321.7 | 337.9 | 369.0 | 388.2 | 427.2 | 436.5 | 421.3 |
| 700 | 290.9 | 306.4 | 338.9 | 346.6 | 363.9 | 374.0 | 385.2 |
| 650 | 261.4 | 272.3 | 300.3 | 297.9 | 285.6 | 321.5 | 338.0 |
| 600 | 228.4 | 225.1 | 233.8 | 243.1 | 235.5 | 273.0 | 290.8 |
| 550 | 189.3 | 180.8 | 174.4 | 185.6 | 181.8 | 224.4 | 225.9 |
| 500 | 143.8 | 137.8 | 128.9 | 126.1 | 127.8 | 135.8 | 151.6 |
| 450 | 94.1 | 97.6 | 95.8 | 91.3 | 107.8 | 95.4 | 94.1 |
| 400 | 98.1 | 100.2 | 111.7 | 105.8 | 104.8 | 97.1 | 90.5 |
| 350 | 181.8 | 182.4 | 216.2 | 231.1 | 190.1 | 123.4 | 125.8 |
| 300 | | | | | | 292.6 | 232.5 |
| LONG | -63.74 | -63.56 | -63.37 | -63.17 | -62.79 | -62.58 | -62.36 |
| LAT | -3.32 | -5.29 | -7.26 | -9.29 | -13.22 | -15.19 | -17.16 |
| QUAL | 23 | 22 | 31 | 31 | 32 | 32 | 33 |

PASS 3961 AT AGASTA, 63 716

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 124739 | 124817 | 124834 | 124910 | 125111 | 125146 | 125221 | 125256 |
| 1000 | 0.200 | 0.193 | 0.181 | 0.198 | 0.154 | 0.121 | 0.113 | 0.134 |
| 950 | 0.226 | 0.217 | 0.207 | 0.224 | 0.172 | 0.132 | 0.129 | 0.146 |
| 900 | 0.254 | 0.242 | 0.234 | 0.248 | 0.191 | 0.146 | 0.144 | 0.159 |
| 850 | 0.282 | 0.269 | 0.263 | 0.273 | 0.214 | 0.164 | 0.163 | 0.173 |
| 800 | 0.311 | 0.299 | 0.294 | 0.301 | 0.241 | 0.191 | 0.187 | 0.190 |
| 750 | 0.345 | 0.334 | 0.329 | 0.334 | 0.272 | 0.224 | 0.217 | 0.209 |
| 700 | 0.387 | 0.377 | 0.372 | 0.378 | 0.308 | 0.260 | 0.251 | 0.238 |
| 650 | 0.450 | 0.439 | 0.433 | 0.439 | 0.353 | 0.302 | 0.292 | 0.277 |
| 600 | 0.555 | 0.540 | 0.509 | 0.543 | 0.412 | 0.353 | 0.342 | 0.329 |
| 550 | 0.730 | 0.729 | 0.600 | 0.722 | 0.498 | 0.425 | 0.412 | 0.401 |
| 500 | 1.036 | 1.057 | 0.811 | 1.029 | 0.636 | 0.542 | 0.514 | 0.521 |
| 450 | 1.582 | 1.646 | 1.628 | 1.601 | 0.909 | 0.765 | 0.694 | 0.757 |
| 400 | 2.399 | 2.721 | 2.439 | 2.627 | 1.643 | 1.292 | 1.153 | 1.213 |
| 350 | 3.527 | 4.225 | 3.917 | 4.061 | 3.056 | 2.328 | 2.022 | 2.048 |
| 300 | | | | | 5.163 | 4.270 | 3.858 | 3.858 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 421.3 | 436.7 | 389.3 | 436.1 | 452.4 | 524.6 | 400.4 | 599.8 |
| 900 | 450.6 | 460.1 | 412.8 | 496.5 | 447.7 | 450.4 | 404.4 | 586.4 |
| 850 | 492.1 | 465.5 | 428.5 | 502.3 | 429.4 | 392.4 | 376.1 | 553.1 |
| 800 | 493.2 | 451.7 | 444.1 | 482.9 | 413.7 | 358.2 | 360.8 | 503.0 |
| 750 | 456.1 | 416.4 | 398.8 | 433.6 | 401.5 | 334.8 | 346.3 | 446.0 |
| 700 | 380.3 | 367.2 | 350.1 | 368.1 | 383.9 | 333.4 | 336.9 | 371.2 |
| 650 | 286.1 | 298.5 | 313.6 | 289.7 | 350.3 | 320.1 | 322.2 | 311.4 |
| 600 | 225.5 | 222.0 | 277.1 | 219.1 | 295.4 | 291.8 | 294.4 | 276.1 |
| 550 | 173.7 | 154.7 | 240.7 | 167.1 | 234.5 | 244.3 | 252.0 | 231.6 |
| 500 | 134.1 | 125.5 | 181.9 | 131.1 | 176.8 | 181.1 | 202.3 | 165.0 |
| 450 | 117.6 | 106.6 | 95.1 | 111.6 | 116.9 | 124.1 | 137.7 | 123.2 |
| 400 | 126.2 | 103.4 | 106.4 | 106.5 | 79.0 | 87.6 | 91.1 | 99.0 |
| 350 | 168.5 | 257.1 | 164.8 | 137.8 | 90.1 | 84.0 | 82.0 | 92.3 |
| 300 | | | | | 92.5 | 86.9 | 80.9 | 81.9 |
| LONG | -62.90 | -62.68 | -62.58 | -62.36 | -61.57 | -61.31 | -61.04 | -60.76 |
| LAT | -12.10 | -14.23 | -15.19 | -17.21 | -24.00 | -25.96 | -27.92 | -29.88 |
| QUAL | 22 | 22 | 22 | 22 | 23 | 33 | 33 | 33 |

PASS 3961 AT AGASTA, 63 716

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 125331 | 125407 | 125442 |
| 1000 | 0.104 | 0.107 | 0.123 |
| 950 | 0.115 | 0.115 | 0.131 |
| 900 | 0.125 | 0.124 | 0.142 |
| 850 | 0.137 | 0.134 | 0.156 |
| 800 | 0.151 | 0.145 | 0.170 |
| 750 | 0.169 | 0.157 | 0.186 |
| 700 | 0.190 | 0.171 | 0.205 |
| 650 | 0.218 | 0.187 | 0.236 |
| 600 | 0.255 | 0.204 | 0.281 |
| 550 | 0.311 | 0.257 | 0.336 |
| 500 | 0.400 | 0.336 | 0.437 |
| 450 | 0.566 | 0.441 | 0.593 |
| 400 | 0.878 | 0.666 | 0.822 |
| 350 | 1.454 | 1.057 | 1.172 |
| 300 | 2.584 | 1.758 | 1.723 |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 525.6 | 652.7 | 672.2 |
| 900 | 584.8 | 646.2 | 583.6 |
| 850 | 508.1 | 607.2 | 565.3 |
| 800 | 471.9 | 570.8 | 574.7 |
| 750 | 443.6 | 534.3 | 551.6 |
| 700 | 415.4 | 497.9 | 421.8 |
| 650 | 359.3 | 461.4 | 331.0 |
| 600 | 289.4 | 425.0 | 276.7 |
| 550 | 222.8 | 272.4 | 237.7 |
| 500 | 178.4 | 177.0 | 189.6 |
| 450 | 134.9 | 156.9 | 161.6 |
| 400 | 106.2 | 116.2 | 148.2 |
| 350 | 94.0 | 104.6 | 134.1 |
| 300 | 84.4 | 90.6 | 119.9 |
| LONG | -60.46 | -60.13 | -59.79 |
| LAT | -31.84 | -33.85 | -35.80 |
| QUAL | 33 | 33 | 23 |

PASS 3961 AT SLANT, 63 716

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 125221 | 125314 |
| 1000 | 0.111 | 0.098 |
| 950 | 0.122 | 0.103 |
| 900 | 0.135 | 0.110 |
| 850 | 0.152 | 0.120 |
| 800 | 0.173 | 0.133 |
| 750 | 0.200 | 0.149 |
| 700 | 0.231 | 0.169 |
| 650 | 0.268 | 0.195 |
| 600 | 0.315 | 0.232 |
| 550 | 0.376 | 0.286 |
| 500 | 0.472 | 0.369 |
| 450 | 0.604 | 0.530 |
| 400 | 1.106 | 0.845 |
| 350 | 2.052 | 1.462 |
| 300 | 3.868 | 2.725 |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 502.1 | 890.4 |
| 900 | 444.0 | 693.3 |
| 850 | 410.5 | 528.7 |
| 800 | 377.0 | 485.4 |
| 750 | 360.4 | 438.5 |
| 700 | 348.5 | 368.8 |
| 650 | 336.6 | 315.2 |
| 600 | 295.7 | 267.6 |
| 550 | 246.6 | 219.8 |
| 500 | 200.4 | 168.4 |
| 450 | 115.4 | 132.6 |
| 400 | 91.1 | 101.9 |
| 350 | 77.8 | 87.3 |
| 300 | 82.4 | 75.3 |

| | | |
|---|---|---|
| LONG | -61.04 | -60.61 |
| LAT | -27.92 | -30.88 |
| QUAL | 33 | 33 |

PASS 4008 AT AGASTA, 63 720

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 737 | 904 | 1348 | 1424 | 1500 | 1517 | 1558 | 1628 |
| 1000 | 0.123 | 0.152 | 0.102 | 0.110 | 0.122 | 0.131 | 0.136 | 0.145 |
| 950 | 0.132 | 0.166 | 0.114 | 0.123 | 0.139 | 0.149 | 0.156 | 0.164 |
| 900 | 0.140 | 0.179 | 0.127 | 0.139 | 0.159 | 0.173 | 0.182 | 0.191 |
| 850 | 0.149 | 0.197 | 0.145 | 0.161 | 0.188 | 0.203 | 0.215 | 0.228 |
| 800 | 0.160 | 0.218 | 0.171 | 0.190 | 0.233 | 0.250 | 0.268 | 0.288 |
| 750 | 0.174 | 0.245 | 0.208 | 0.225 | 0.292 | 0.316 | 0.336 | 0.368 |
| 700 | 0.201 | 0.285 | 0.266 | 0.283 | 0.366 | 0.399 | 0.427 | 0.469 |
| 650 | 0.239 | 0.341 | 0.342 | 0.367 | 0.473 | 0.515 | 0.548 | 0.614 |
| 600 | 0.288 | 0.425 | 0.470 | 0.494 | 0.603 | 0.668 | 0.694 | 0.790 |
| 550 | 0.348 | 0.577 | 0.669 | 0.736 | 0.755 | 0.850 | 0.900 | 1.037 |
| 500 | 0.523 | 0.840 | 1.055 | 1.082 | 1.167 | 1.202 | 1.339 | 1.571 |
| 450 | 0.804 | 1.260 | 1.763 | 1.674 | 1.714 | 1.733 | 1.964 | 2.319 |
| 400 | 1.279 | 1.866 | 2.902 | 2.668 | 2.460 | 2.430 | 2.818 | 3.338 |
| 350 | 1.833 | | | | | 3.369 | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 830.5 | 653.4 | 462.0 | 438.2 | 373.6 | 363.6 | 349.9 | 358.9 |
| 900 | 858.7 | 578.2 | 415.0 | 365.2 | 313.7 | 318.2 | 305.6 | 304.5 |
| 850 | 723.8 | 504.1 | 340.8 | 332.2 | 277.7 | 272.2 | 263.2 | 256.1 |
| 800 | 581.4 | 443.9 | 277.6 | 295.2 | 258.5 | 250.1 | 243.5 | 238.4 |
| 750 | 449.4 | 384.9 | 232.8 | 254.9 | 239.2 | 233.4 | 223.7 | 220.7 |
| 700 | 389.2 | 321.3 | 211.1 | 219.6 | 220.7 | 216.8 | 209.2 | 203.8 |
| 650 | 335.4 | 259.6 | 169.4 | 182.1 | 205.5 | 203.2 | 199.4 | 192.0 |
| 600 | 281.6 | 201.3 | 161.6 | 147.4 | 190.3 | 191.2 | 189.6 | 180.1 |
| 550 | 227.9 | 150.2 | 124.3 | 138.1 | 175.2 | 179.2 | 173.0 | 164.3 |
| 500 | 162.3 | 128.3 | 103.7 | 128.7 | 139.2 | 156.2 | 128.7 | 131.0 |
| 450 | 114.5 | 126.9 | 98.4 | 116.0 | 134.3 | 142.6 | 136.0 | 134.1 |
| 400 | 125.3 | 134.6 | 112.7 | 110.3 | 143.4 | 152.1 | 152.7 | 155.5 |
| 350 | 178.6 | | | | | 179.6 | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -67.31 | -66.62 | -64.85 | -64.65 | -64.45 | -64.36 | -64.15 | -63.99 |
| LAT | -30.08 | -25.18 | -9.16 | -7.12 | -5.09 | -4.13 | -1.80 | -0.11 |
| QUAL | 22 | 33 | 33 | 23 | 23 | 23 | 23 | 23 |

PASS 4008 AT QUITOE, 63 720

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 1628 | 1730 | 1804 | 1840 | 2044 | 2120 |
| 1000 | 0.118 | 0.126 | 0.126 | 0.103 | 0.090 | 0.092 |
| 950 | 0.133 | 0.140 | 0.141 | 0.119 | 0.096 | 0.098 |
| 900 | 0.154 | 0.162 | 0.161 | 0.139 | 0.104 | 0.106 |
| 850 | 0.181 | 0.188 | 0.188 | 0.164 | 0.117 | 0.118 |
| 800 | 0.214 | 0.221 | 0.220 | 0.195 | 0.135 | 0.134 |
| 750 | 0.254 | 0.267 | 0.259 | 0.234 | 0.159 | 0.156 |
| 700 | 0.329 | 0.341 | 0.330 | 0.306 | 0.190 | 0.182 |
| 650 | 0.434 | 0.448 | 0.449 | 0.402 | 0.235 | 0.214 |
| 600 | 0.580 | 0.604 | 0.643 | 0.558 | 0.328 | 0.300 |
| 550 | 0.856 | 0.883 | 0.958 | 0.862 | 0.488 | 0.466 |
| 500 | 1.298 | 1.400 | 1.469 | 1.406 | 0.785 | 0.794 |
| 450 | 2.013 | 2.284 | 2.388 | 2.294 | 1.321 | 1.304 |
| 400 | 3.047 | 3.616 | 3.854 | 3.715 | 2.290 | 2.090 |
| 350 | 4.242 | 5.133 | | | 3.502 | 3.214 |
| 300 | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | |
|---|---|---|---|---|---|---|
| 950 | 377.3 | 423.7 | 401.7 | 336.4 | 648.8 | 720.0 |
| 900 | 324.4 | 350.1 | 344.7 | 309.1 | 518.5 | 568.9 |
| 850 | 302.2 | 316.7 | 315.8 | 286.8 | 433.7 | 462.7 |
| 800 | 280.0 | 287.3 | 289.6 | 265.2 | 368.3 | 380.6 |
| 750 | 257.7 | 250.4 | 263.3 | 241.6 | 306.8 | 338.8 |
| 700 | 200.5 | 199.6 | 218.4 | 207.3 | 260.0 | 297.1 |
| 650 | 170.6 | 175.1 | 158.1 | 172.2 | 205.6 | 253.4 |
| 600 | 154.0 | 153.3 | 134.6 | 134.2 | 137.4 | 130.7 |
| 550 | 132.3 | 126.9 | 122.6 | 114.6 | 119.8 | 108.7 |
| 500 | 115.8 | 105.0 | 112.1 | 101.8 | 101.9 | 97.0 |
| 450 | 115.7 | 103.7 | 100.6 | 103.1 | 94.3 | 104.8 |
| 400 | 132.9 | 119.9 | 111.7 | 112.5 | 98.0 | 109.4 |
| 350 | 188.4 | 185.7 | | | 155.6 | 135.8 |
| 300 | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| LONG | -64.00 | -63.67 | -63.49 | -63.30 | -62.60 | -62.39 |
| LAT | -0.01 | 3.48 | 5.41 | 7.44 | 14.44 | 16.46 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 33 |

PASS 4009 AT FTMYRS, 63 720

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 2620 | 2638 |
| 1000 | 0.080 | 0.085 |
| 950 | 0.093 | 0.097 |
| 900 | 0.107 | 0.113 |
| 850 | 0.128 | 0.137 |
| 800 | 0.156 | 0.168 |
| 750 | 0.190 | 0.207 |
| 700 | 0.230 | 0.253 |
| 650 | 0.279 | 0.317 |
| 600 | 0.388 | 0.436 |
| 550 | 0.545 | 0.623 |
| 500 | 0.783 | 0.915 |
| 450 | 1.256 | 1.408 |
| 400 | 1.984 | 2.143 |
| 350 | 3.127 | 3.151 |
| 300 | 3.900 | 3.962 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 357.7 | 364.4 |
| 900 | 312.2 | 302.4 |
| 850 | 272.8 | 254.2 |
| 800 | 249.8 | 236.1 |
| 750 | 239.9 | 229.1 |
| 700 | 230.1 | 222.2 |
| 650 | 218.4 | 205.1 |
| 600 | 169.8 | 154.8 |
| 550 | 141.9 | 138.8 |
| 500 | 126.0 | 124.5 |
| 450 | 107.6 | 118.1 |
| 400 | 108.0 | 121.2 |
| 350 | 145.1 | 163.4 |
| 300 | 723.6 | 378.4 |
| LONG | -60.17 | -60.00 |
| LAT | 33.30 | 34.30 |
| QUAL | 32 | 33 |

PASS 4016 AT RESLUT, 63 720

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 130316 | 130336 | 130352 | 130410 | 130428 | 130446 | 130504 | 130522 |
| 1000 | 0.102 | 0.130 | 0.132 | 0.118 | 0.104 | 0.147 | 0.152 | 0.149 |
| 950 | 0.118 | 0.167 | 0.149 | 0.131 | 0.119 | 0.160 | 0.170 | 0.166 |
| 900 | 0.138 | 0.186 | 0.170 | 0.146 | 0.137 | 0.175 | 0.190 | 0.187 |
| 850 | 0.161 | 0.208 | 0.193 | 0.165 | 0.160 | 0.194 | 0.214 | 0.212 |
| 800 | 0.187 | 0.233 | 0.219 | 0.188 | 0.186 | 0.218 | 0.242 | 0.243 |
| 750 | 0.221 | 0.266 | 0.250 | 0.218 | 0.218 | 0.248 | 0.279 | 0.283 |
| 700 | 0.262 | 0.306 | 0.286 | 0.255 | 0.255 | 0.288 | 0.323 | 0.330 |
| 650 | 0.315 | 0.352 | 0.345 | 0.298 | 0.299 | 0.348 | 0.376 | 0.389 |
| 600 | 0.392 | 0.431 | 0.420 | 0.360 | 0.357 | 0.422 | 0.466 | 0.457 |
| 550 | 0.486 | 0.565 | 0.526 | 0.456 | 0.449 | 0.510 | 0.581 | 0.559 |
| 500 | 0.621 | 0.731 | 0.666 | 0.580 | 0.563 | 0.646 | 0.724 | 0.721 |
| 450 | 0.840 | 0.934 | 0.834 | 0.780 | 0.721 | 0.843 | 0.908 | 0.924 |
| 400 | 1.126 | 1.174 | 1.088 | 1.034 | 0.922 | 1.100 | 1.129 | 1.191 |
| 350 | 1.490 | 1.524 | 1.411 | 1.348 | 1.184 | 1.445 | 1.478 | 1.531 |
| 300 | 1.958 | 1.964 | 1.842 | 1.767 | 1.547 | 1.902 | 1.914 | 2.006 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 352.7 | 465.1 | 392.8 | 467.4 | 351.7 | 579.2 | 446.9 | 438.9 |
| 900 | 324.1 | 457.4 | 396.4 | 430.2 | 344.2 | 513.0 | 427.4 | 408.7 |
| 850 | 318.5 | 425.1 | 391.2 | 392.6 | 336.0 | 447.4 | 401.7 | 381.7 |
| 800 | 312.1 | 385.6 | 373.2 | 354.8 | 323.1 | 402.8 | 374.1 | 356.6 |
| 750 | 294.1 | 358.0 | 346.5 | 329.5 | 309.8 | 358.2 | 345.4 | 332.0 |
| 700 | 276.0 | 330.4 | 319.1 | 308.7 | 296.0 | 319.2 | 316.3 | 310.1 |
| 650 | 257.7 | 302.8 | 282.8 | 288.0 | 282.1 | 295.4 | 287.3 | 290.6 |
| 600 | 239.0 | 269.7 | 246.5 | 260.8 | 265.3 | 271.6 | 266.7 | 271.0 |
| 550 | 220.3 | 230.6 | 229.7 | 225.6 | 242.5 | 247.9 | 246.7 | 249.5 |
| 500 | 201.7 | 201.2 | 220.3 | 195.0 | 219.7 | 224.8 | 229.1 | 225.4 |
| 450 | 183.2 | 204.3 | 211.0 | 189.3 | 210.2 | 202.1 | 219.3 | 203.6 |
| 400 | 176.9 | 206.7 | 200.8 | 185.3 | 204.9 | 188.3 | 209.8 | 199.2 |
| 350 | 183.3 | 200.5 | 196.1 | 188.5 | 197.9 | 185.4 | 205.1 | 203.0 |
| 300 | 484.7 | 218.4 | 212.1 | 300.3 | 188.2 | 165.9 | 205.7 | 225.7 |
| LONG | -135.06 | -130.94 | -127.27 | -123.82 | -120.91 | -118.00 | -115.28 | -113.23 |
| LAT | 78.75 | 78.18 | 77.67 | 77.01 | 76.29 | 75.56 | 74.81 | 73.98 |
| QUAL | 31 | 32 | 21 | 21 | 31 | 31 | 33 | 33 |

PASS 4016 AT RESLUTE 63 720

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 130540 | 130558 | 130650 | 130708 | 130726 | 130744 | 130802 | 130820 |
| 1000 | 0.160 | 0.167 | 0.187 | 0.181 | 0.171 | 0.208 | 0.188 | 0.188 |
| 950 | 0.181 | 0.190 | 0.208 | 0.197 | 0.192 | 0.224 | 0.209 | 0.205 |
| 900 | 0.204 | 0.210 | 0.229 | 0.217 | 0.211 | 0.245 | 0.230 | 0.225 |
| 850 | 0.231 | 0.234 | 0.256 | 0.244 | 0.232 | 0.274 | 0.256 | 0.252 |
| 800 | 0.263 | 0.265 | 0.287 | 0.277 | 0.256 | 0.314 | 0.285 | 0.286 |
| 750 | 0.301 | 0.303 | 0.330 | 0.318 | 0.291 | 0.359 | 0.332 | 0.330 |
| 700 | 0.346 | 0.349 | 0.383 | 0.365 | 0.365 | 0.410 | 0.393 | 0.385 |
| 650 | 0.401 | 0.411 | 0.454 | 0.431 | 0.462 | 0.469 | 0.466 | 0.455 |
| 600 | 0.495 | 0.498 | 0.542 | 0.519 | 0.566 | 0.570 | 0.551 | 0.558 |
| 550 | 0.614 | 0.607 | 0.645 | 0.625 | 0.678 | 0.708 | 0.651 | 0.685 |
| 500 | 0.757 | 0.737 | 0.798 | 0.771 | 0.802 | 0.691 | 0.846 | 0.844 |
| 450 | 0.975 | 0.957 | 1.037 | 0.989 | 1.011 | 1.122 | 1.099 | 1.079 |
| 400 | 1.245 | 1.233 | 1.333 | 1.266 | 1.347 | 1.426 | 1.404 | 1.370 |
| 350 | 1.618 | 1.617 | 1.701 | 1.664 | 1.737 | 1.838 | 1.780 | 1.747 |
| 300 | 2.108 | 2.091 | 2.202 | 2.180 | 2.185 | 2.335 | 2.253 | 2.171 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 410.9 | 454.8 | 495.4 | 531.6 | | 599.5 | 495.6 | 553.9 |
| 900 | 405.3 | 435.2 | 465.4 | 466.0 | 513.9 | 497.4 | 470.1 | 475.1 |
| 850 | 392.6 | 422.5 | 435.2 | 419.8 | 460.5 | 440.6 | 431.4 | 429.9 |
| 800 | 375.4 | 398.6 | 404.7 | 379.0 | 406.9 | 388.4 | 392.8 | 384.6 |
| 750 | 349.0 | 371.6 | 382.8 | 352.5 | 354.6 | 360.6 | 354.0 | 346.1 |
| 700 | 321.1 | 319.9 | 307.2 | 326.0 | 306.1 | 337.9 | 315.1 | 310.8 |
| 650 | 294.2 | 285.5 | 291.9 | 302.3 | 257.7 | 315.2 | 288.8 | 279.4 |
| 600 | 272.4 | 270.0 | 276.7 | 280.3 | 245.4 | 277.4 | 269.0 | 263.6 |
| 550 | 250.7 | 254.4 | 261.4 | 258.4 | 242.9 | 236.4 | 249.1 | 247.8 |
| 500 | 228.9 | 238.9 | 242.5 | 236.9 | 240.3 | 221.3 | 228.6 | 232.5 |
| 450 | 215.1 | 215.3 | 218.6 | 216.2 | 222.9 | 215.6 | 206.1 | 220.2 |
| 400 | 201.7 | 193.7 | 202.4 | 197.5 | 193.6 | 207.9 | 208.0 | 212.5 |
| 350 | 194.8 | 196.6 | 200.5 | 187.9 | 209.0 | 208.7 | 217.0 | 222.6 |
| 300 | 157.4 | 376.0 | 172.8 | 190.4 | 272.9 | 381.0 | 374.7 | 308.6 |
| LONG | -111.18 | -109.13 | -104.78 | -103.47 | -102.37 | -101.26 | -100.19 | -99.35 |
| LAT | 73.16 | 72.33 | 69.80 | 68.90 | 67.99 | 67.07 | 66.16 | 65.22 |
| QUAL | 32 | 21 | 31 | 32 | 31 | 32 | 31 | 33 |

PASS 4016 AT RESLUT, 63 720

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 130836 | 130856 | 130912 | 130930 | 130948 | 131006 | 131024 | 131042 |
| 1000 | 0.175 | 0.185 | 0.180 | 0.174 | 0.157 | 0.128 | 0.121 | 0.113 |
| 950 | 0.190 | 0.203 | 0.199 | 0.199 | 0.175 | 0.148 | 0.140 | 0.128 |
| 900 | 0.210 | 0.222 | 0.221 | 0.220 | 0.207 | 0.169 | 0.161 | 0.147 |
| 850 | 0.238 | 0.246 | 0.248 | 0.246 | 0.236 | 0.191 | 0.185 | 0.169 |
| 800 | 0.275 | 0.278 | 0.282 | 0.277 | 0.269 | 0.217 | 0.212 | 0.197 |
| 750 | 0.319 | 0.315 | 0.324 | 0.316 | 0.311 | 0.253 | 0.249 | 0.230 |
| 700 | 0.373 | 0.368 | 0.376 | 0.363 | 0.359 | 0.294 | 0.294 | 0.268 |
| 650 | 0.435 | 0.432 | 0.438 | 0.430 | 0.414 | 0.342 | 0.346 | 0.312 |
| 600 | 0.505 | 0.528 | 0.521 | 0.518 | 0.512 | 0.396 | 0.406 | 0.370 |
| 550 | 0.632 | 0.650 | 0.629 | 0.624 | 0.632 | 0.480 | 0.514 | 0.482 |
| 500 | 0.799 | 0.811 | 0.770 | 0.771 | 0.786 | 0.654 | 0.666 | 0.618 |
| 450 | 1.016 | 1.050 | 1.000 | 1.010 | 0.995 | 0.865 | 0.854 | 0.788 |
| 400 | 1.320 | 1.351 | 1.362 | 1.318 | 1.264 | 1.127 | 1.088 | 1.034 |
| 350 | 1.725 | 1.740 | 1.854 | 1.711 | 1.642 | 1.447 | 1.402 | 1.362 |
| 300 | 2.246 | 2.268 | 2.409 | 2.287 | 2.131 | 1.881 | 1.814 | 1.839 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 522.1 | 555.8 | 493.8 | 473.6 | 565.1 | 339.4 | 330.5 | 353.4 |
| 900 | 439.4 | 492.2 | 448.8 | 455.3 | 331.6 | 349.8 | 337.9 | 342.9 |
| 850 | 403.4 | 449.2 | 411.0 | 428.8 | 346.3 | 350.0 | 332.1 | 332.5 |
| 800 | 367.4 | 412.4 | 380.2 | 400.9 | 345.0 | 343.9 | 326.2 | 321.1 |
| 750 | 336.9 | 375.3 | 351.8 | 362.6 | 330.3 | 328.8 | 312.1 | 309.5 |
| 700 | 318.4 | 325.3 | 330.5 | 323.5 | 315.5 | 313.7 | 297.8 | 298.0 |
| 650 | 299.8 | 277.5 | 309.2 | 297.0 | 300.8 | 298.6 | 283.4 | 286.5 |
| 600 | 281.2 | 258.6 | 284.2 | 275.9 | 274.4 | 283.5 | 269.1 | 272.0 |
| 550 | 255.2 | 239.6 | 257.2 | 254.9 | 247.8 | 262.8 | 246.3 | 246.8 |
| 500 | 227.9 | 222.6 | 227.0 | 232.0 | 227.6 | 227.8 | 220.3 | 221.7 |
| 450 | 205.6 | 209.9 | 185.3 | 204.9 | 218.0 | 192.8 | 204.3 | 199.6 |
| 400 | 193.7 | 199.7 | 169.1 | 188.4 | 201.7 | 194.9 | 202.6 | 188.4 |
| 350 | 192.5 | 195.6 | 180.9 | 184.0 | 189.0 | 195.6 | 197.8 | 176.0 |
| 300 | 248.3 | 193.3 | 229.3 | 179.7 | 186.8 | 185.5 | 197.9 | 178.4 |
| LONG | -98.61 | -97.68 | -97.04 | -96.36 | -95.69 | -95.06 | -94.52 | -93.99 |
| LAT | 64.39 | 63.35 | 62.50 | 61.53 | 60.60 | 59.64 | 58.67 | 57.71 |
| QUAL | 33 | 32 | 33 | 33 | 33 | 33 | 33 | 23 |

PASS 4016 AT RESLUT, 63 720

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 131058 | 131116 | 131134 | 131152 | 131228 | 131306 | 131324 |
| 1000 | 0.098 | 0.111 | 0.084 | 0.104 | 0.106 | 0.105 | 0.106 |
| 950 | 0.113 | 0.129 | 0.099 | 0.123 | 0.121 | 0.122 | 0.125 |
| 900 | 0.132 | 0.147 | 0.116 | 0.143 | 0.138 | 0.139 | 0.144 |
| 850 | 0.153 | 0.171 | 0.135 | 0.164 | 0.159 | 0.159 | 0.170 |
| 800 | 0.179 | 0.198 | 0.158 | 0.190 | 0.185 | 0.183 | 0.200 |
| 750 | 0.211 | 0.231 | 0.185 | 0.222 | 0.215 | 0.211 | 0.236 |
| 700 | 0.248 | 0.270 | 0.214 | 0.259 | 0.254 | 0.243 | 0.279 |
| 650 | 0.291 | 0.316 | 0.247 | 0.301 | 0.298 | 0.289 | 0.329 |
| 600 | 0.339 | 0.367 | 0.305 | 0.366 | 0.348 | 0.344 | 0.385 |
| 550 | 0.457 | 0.466 | 0.375 | 0.474 | 0.414 | 0.406 | 0.484 |
| 500 | 0.567 | 0.593 | 0.457 | 0.605 | 0.551 | 0.481 | 0.614 |
| 450 | 0.750 | 0.778 | 0.551 | 0.783 | 0.722 | 0.676 | 0.771 |
| 400 | 1.036 | 1.046 | 0.659 | 1.044 | 0.961 | 0.926 | 1.056 |
| 350 | 1.377 | 1.393 | 0.779 | 1.408 | 1.285 | 1.245 | 1.441 |
| 300 | 1.827 | 1.849 | 1.014 | 1.874 | 1.753 | 1.683 | 1.963 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 323.0 | | | 313.1 | 354.2 | | |
| 900 | 319.5 | 332.9 | 308.4 | 320.9 | 351.6 | 350.1 | 312.0 |
| 850 | 314.7 | 332.4 | 314.4 | 327.7 | 341.8 | 351.0 | 309.0 |
| 800 | 308.1 | 331.9 | 309.7 | 323.1 | 331.9 | 341.5 | 305.9 |
| 750 | 298.3 | 325.0 | 305.0 | 309.0 | 320.4 | 331.9 | 300.1 |
| 700 | 288.5 | 308.0 | 300.3 | 295.0 | 304.9 | 321.2 | 299.0 |
| 650 | 278.7 | 291.0 | 295.6 | 281.0 | 289.4 | 300.6 | 278.0 |
| 600 | 268.8 | 274.0 | 289.4 | 262.3 | 273.8 | 280.1 | 266.9 |
| 550 | 237.0 | 241.7 | 283.3 | 237.5 | 255.6 | 259.5 | 244.9 |
| 500 | 201.3 | 208.5 | 277.2 | 212.6 | 224.6 | 238.1 | 220.7 |
| 450 | 177.9 | 188.0 | 267.2 | 191.7 | 193.7 | 196.4 | 196.6 |
| 400 | 173.5 | 178.4 | 253.0 | 176.8 | 177.0 | 163.9 | 176.6 |
| 350 | 170.7 | 176.8 | 238.8 | 171.0 | 168.5 | 166.5 | 163.1 |
| 300 | 176.6 | 190.0 | 179.7 | 190.7 | 164.2 | 163.0 | 170.1 |
| LONG | -93.51 | -93.06 | -92.62 | -92.18 | -91.42 | -90.67 | -90.36 |
| LAT | 56.85 | 55.87 | 54.90 | 53.92 | 51.96 | 49.89 | 48.90 |
| QUAL | 23 | 22 | 22 | 22 | 22 | 22 | 22 |

PASS 4016 AT OTTAWA, 63 720

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 131228 | 131324 | 131400 | 131435 | 131510 | 131546 |
| 1000 | 0.105 | 0.105 | 0.110 | 0.099 | 0.118 | 0.112 |
| 950 | 0.121 | 0.121 | 0.125 | 0.115 | 0.133 | 0.126 |
| 900 | 0.140 | 0.139 | 0.142 | 0.133 | 0.150 | 0.143 |
| 850 | 0.162 | 0.160 | 0.162 | 0.153 | 0.173 | 0.164 |
| 800 | 0.189 | 0.187 | 0.187 | 0.177 | 0.200 | 0.189 |
| 750 | 0.221 | 0.218 | 0.217 | 0.206 | 0.234 | 0.219 |
| 700 | 0.260 | 0.258 | 0.253 | 0.243 | 0.273 | 0.255 |
| 650 | 0.306 | 0.304 | 0.296 | 0.285 | 0.318 | 0.306 |
| 600 | 0.385 | 0.373 | 0.344 | 0.354 | 0.406 | 0.390 |
| 550 | 0.496 | 0.488 | 0.425 | 0.468 | 0.522 | 0.500 |
| 500 | 0.636 | 0.633 | 0.561 | 0.615 | 0.665 | 0.639 |
| 450 | 0.839 | 0.830 | 0.731 | 0.830 | 0.898 | 0.875 |
| 400 | 1.097 | 1.091 | 1.000 | 1.141 | 1.200 | 1.170 |
| 350 | 1.420 | 1.416 | 1.351 | 1.586 | 1.660 | 1.763 |
| 300 | 1.888 | 1.930 | 1.839 | 2.251 | 2.241 | 2.600 |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 337.7 | 343.8 | 383.2 | 347.3 | 407.6 | 404.8 |
| 900 | 335.2 | 342.3 | 372.9 | 344.2 | 376.2 | 387.7 |
| 850 | 330.5 | 336.1 | 360.2 | 338.8 | 358.4 | 370.2 |
| 800 | 323.8 | 324.7 | 345.1 | 329.8 | 340.6 | 351.3 |
| 750 | 315.2 | 312.9 | 329.9 | 319.9 | 316.9 | 324.7 |
| 700 | 286.1 | 287.2 | 310.9 | 290.1 | 290.9 | 285.5 |
| 650 | 257.0 | 261.5 | 291.9 | 260.3 | 264.8 | 253.8 |
| 600 | 236.8 | 238.9 | 272.9 | 234.0 | 241.7 | 233.9 |
| 550 | 218.6 | 220.2 | 247.1 | 211.5 | 218.8 | 214.1 |
| 500 | 200.4 | 201.4 | 213.8 | 188.9 | 195.8 | 194.1 |
| 450 | 195.2 | 190.6 | 180.6 | 171.8 | 179.4 | 172.0 |
| 400 | 192.1 | 185.8 | 171.9 | 159.9 | 164.9 | 150.0 |
| 350 | 186.0 | 182.1 | 166.4 | 165.1 | 172.9 | 138.0 |
| 300 | 168.1 | 185.8 | 175.1 | 190.3 | 183.3 | 172.5 |
| LONG | -91.42 | -90.36 | -89.74 | -89.23 | -88.73 | -88.28 |
| LAT | 51.96 | 48.90 | 46.93 | 45.00 | 43.07 | 41.08 |
| QUAL | 13 | 23 | 23 | 23 | 23 | 13 |

PASS 4016 AT OTTAWA, 63 720

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 131621 | 131639 | 131715 | 131750 | 131826 | 131901 | 131936 | 131955 |
| 1000 | 0.096 | 0.103 | 0.093 | 0.097 | 0.109 | 0.087 | 0.099 | 0.098 |
| 950 | 0.108 | 0.116 | 0.106 | 0.111 | 0.123 | 0.101 | 0.110 | 0.109 |
| 900 | 0.123 | 0.132 | 0.122 | 0.126 | 0.138 | 0.115 | 0.123 | 0.122 |
| 850 | 0.143 | 0.152 | 0.140 | 0.145 | 0.157 | 0.134 | 0.142 | 0.140 |
| 800 | 0.166 | 0.176 | 0.163 | 0.169 | 0.180 | 0.156 | 0.165 | 0.162 |
| 750 | 0.195 | 0.205 | 0.191 | 0.197 | 0.208 | 0.183 | 0.192 | 0.189 |
| 700 | 0.230 | 0.242 | 0.225 | 0.231 | 0.242 | 0.216 | 0.223 | 0.222 |
| 650 | 0.270 | 0.285 | 0.264 | 0.274 | 0.282 | 0.253 | 0.266 | 0.259 |
| 600 | 0.333 | 0.347 | 0.340 | 0.356 | 0.366 | 0.328 | 0.328 | 0.313 |
| 550 | 0.443 | 0.465 | 0.449 | 0.462 | 0.479 | 0.427 | 0.417 | 0.407 |
| 500 | 0.582 | 0.616 | 0.584 | 0.602 | 0.631 | 0.552 | 0.550 | 0.526 |
| 450 | 0.787 | 0.841 | 0.803 | 0.826 | 0.853 | 0.773 | 0.759 | 0.714 |
| 400 | 1.089 | 1.160 | 1.108 | 1.139 | 1.188 | 1.056 | 1.039 | 0.966 |
| 350 | 1.656 | 1.745 | 1.644 | 1.674 | 1.737 | 1.525 | 1.411 | 1.317 |
| 300 | 2.635 | 2.778 | 2.661 | 2.684 | 2.690 | 2.369 | 1.904 | 1.794 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 392.9 | 395.5 | 375.5 | 373.1 | 406.3 | 350.9 | 463.4 | 432.9 |
| 900 | 360.5 | 371.5 | 362.6 | 363.2 | 400.0 | 340.4 | 394.7 | 396.6 |
| 850 | 342.9 | 352.6 | 345.7 | 347.0 | 377.1 | 331.6 | 368.4 | 371.2 |
| 800 | 325.2 | 335.2 | 322.8 | 329.2 | 352.1 | 323.3 | 342.0 | 345.7 |
| 750 | 305.0 | 315.9 | 299.3 | 304.3 | 323.5 | 306.8 | 320.6 | 321.6 |
| 700 | 283.4 | 289.5 | 275.6 | 277.7 | 294.4 | 277.7 | 299.6 | 299.2 |
| 650 | 261.9 | 263.0 | 251.9 | 251.6 | 265.3 | 248.7 | 270.3 | 276.7 |
| 600 | 238.8 | 236.4 | 229.2 | 228.5 | 234.9 | 225.8 | 234.0 | 251.4 |
| 550 | 213.4 | 209.3 | 206.8 | 205.4 | 204.5 | 202.9 | 198.4 | 219.7 |
| 500 | 188.0 | 182.3 | 184.5 | 183.0 | 178.5 | 180.4 | 170.2 | 188.0 |
| 450 | 164.1 | 161.3 | 165.2 | 164.4 | 162.0 | 167.0 | 167.0 | 176.0 |
| 400 | 141.6 | 144.2 | 147.2 | 144.3 | 144.4 | 153.7 | 164.3 | 168.4 |
| 350 | 121.7 | 119.6 | 116.9 | 120.5 | 125.3 | 131.6 | 164.4 | 161.5 |
| 300 | 97.6 | 100.2 | 102.3 | 103.9 | 140.2 | 134.5 | 163.2 | 159.8 |
| LONG | -87.87 | -87.66 | -87.28 | -86.93 | -86.60 | -86.29 | -86.01 | -85.86 |
| LAT | 39.14 | 38.15 | 36.14 | 34.20 | 32.19 | 30.23 | 28.28 | 27.22 |
| QUAL | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |

PASS 4016 AT OTTAWA, 63 720

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 132030 | 132105 | 132141 |
| 1000 | 0.095 | 0.105 | 0.089 |
| 950 | 0.104 | 0.115 | 0.102 |
| 900 | 0.117 | 0.127 | 0.116 |
| 850 | 0.133 | 0.143 | 0.132 |
| 800 | 0.154 | 0.163 | 0.153 |
| 750 | 0.180 | 0.186 | 0.178 |
| 700 | 0.212 | 0.213 | 0.207 |
| 650 | 0.250 | 0.257 | 0.246 |
| 600 | 0.295 | 0.320 | 0.307 |
| 550 | 0.381 | 0.418 | 0.393 |
| 500 | 0.504 | 0.564 | 0.543 |
| 450 | 0.687 | 0.812 | 0.750 |
| 400 | 0.951 | 1.158 | 1.131 |
| 350 | 1.377 | 1.626 | 1.633 |
| 300 | | 2.130 | 2.170 |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 481.8 | 542.1 | 371.7 |
| 900 | 424.7 | 463.6 | 369.0 |
| 850 | 376.9 | 418.3 | 360.3 |
| 800 | 350.3 | 381.9 | 347.8 |
| 750 | 323.7 | 353.1 | 331.1 |
| 700 | 299.0 | 324.3 | 298.1 |
| 650 | 275.1 | 263.5 | 263.0 |
| 600 | 251.2 | 211.1 | 223.1 |
| 550 | 219.1 | 184.1 | 187.1 |
| 500 | 185.0 | 162.1 | 164.6 |
| 450 | 162.5 | 150.3 | 145.0 |
| 400 | 149.2 | 152.3 | 151.4 |
| 350 | 123.3 | 168.9 | 160.6 |
| 300 | | 209.2 | 192.1 |
| LONG | -85.60 | -85.35 | -85.11 |
| LAT | 25.25 | 23.29 | 21.27 |
| QUAL | 23 | 23 | 33 |

PASS 4016 AT QUITOE, 63 720

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 132353 | 132429 | 132504 | 132540 | 132615 | 132651 | 132726 | 132802 |
| 1000 | 0.099 | 0.123 | 0.124 | 0.145 | 0.148 | 0.134 | 0.156 | 0.149 |
| 950 | 0.118 | 0.141 | 0.141 | 0.160 | 0.164 | 0.150 | 0.172 | 0.165 |
| 900 | 0.139 | 0.164 | 0.162 | 0.182 | 0.184 | 0.169 | 0.191 | 0.183 |
| 850 | 0.164 | 0.190 | 0.186 | 0.206 | 0.206 | 0.191 | 0.214 | 0.204 |
| 800 | 0.192 | 0.222 | 0.214 | 0.234 | 0.233 | 0.219 | 0.241 | 0.229 |
| 750 | 0.229 | 0.260 | 0.249 | 0.269 | 0.267 | 0.252 | 0.273 | 0.260 |
| 700 | 0.272 | 0.306 | 0.289 | 0.310 | 0.308 | 0.293 | 0.313 | 0.297 |
| 650 | 0.329 | 0.365 | 0.339 | 0.361 | 0.360 | 0.344 | 0.358 | 0.347 |
| 600 | 0.397 | 0.435 | 0.397 | 0.425 | 0.424 | 0.403 | 0.420 | 0.421 |
| 550 | 0.484 | 0.520 | 0.497 | 0.530 | 0.528 | 0.490 | 0.518 | 0.514 |
| 500 | 0.627 | 0.660 | 0.626 | 0.684 | 0.668 | 0.623 | 0.684 | 0.679 |
| 450 | 0.863 | 0.867 | 0.850 | 0.930 | 0.936 | 0.864 | 0.957 | 0.944 |
| 400 | 1.231 | 1.211 | 1.233 | 1.319 | 1.363 | 1.316 | 1.475 | 1.498 |
| 350 | | 1.778 | 1.837 | 1.928 | 2.014 | 2.074 | 2.361 | 2.563 |
| 300 | | | | | 2.872 | 3.139 | 3.458 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 290.3 | 344.4 | 364.9 | 444.0 | 449.1 | 427.8 | 473.2 | 478.9 |
| 900 | 296.8 | 333.7 | 356.7 | 404.2 | 428.8 | 407.4 | 453.5 | 460.2 |
| 850 | 298.6 | 328.1 | 352.5 | 390.3 | 410.5 | 387.8 | 434.4 | 435.9 |
| 800 | 300.5 | 318.2 | 347.2 | 375.8 | 390.3 | 365.9 | 408.6 | 407.9 |
| 750 | 286.5 | 305.7 | 335.3 | 360.1 | 367.3 | 343.7 | 381.5 | 373.9 |
| 700 | 272.5 | 293.5 | 321.1 | 341.8 | 344.3 | 323.7 | 355.5 | 339.1 |
| 650 | 260.9 | 281.6 | 295.0 | 306.0 | 307.4 | 305.8 | 329.4 | 303.1 |
| 600 | 249.3 | 269.8 | 268.8 | 268.8 | 267.1 | 287.9 | 288.1 | 265.9 |
| 550 | 230.4 | 254.2 | 234.6 | 226.0 | 227.5 | 242.1 | 219.7 | 228.7 |
| 500 | 184.3 | 210.1 | 200.2 | 187.6 | 188.0 | 184.0 | 174.8 | 183.9 |
| 450 | 157.5 | 171.4 | 157.4 | 157.0 | 147.8 | 140.2 | 137.6 | 135.8 |
| 400 | 140.4 | 143.1 | 127.0 | 138.0 | 130.9 | 115.0 | 110.4 | 99.9 |
| 350 | | 141.4 | 132.7 | 125.9 | 132.0 | 110.0 | 114.1 | 103.4 |
| 300 | | | | | 170.6 | 195.2 | 265.4 | |
| LONG | -84.29 | -84.09 | -83.89 | -83.69 | -83.50 | -83.32 | -83.13 | -82.94 |
| LAT | 13.85 | 11.83 | 9.85 | 7.83 | 5.85 | 3.83 | 1.86 | -0.16 |
| QUAL | 13 | 13 | 13 | 13 | 13 | 12 | 11 | 11 |

PASS 4016 AT QUITOE, 63 720

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 132844 | 132921 | 132957 | 133032 | 133050 | 133126 | 133200 | 133219 |
| 1000 | 0.155 | 0.144 | 0.161 | 0.172 | 0.163 | 0.174 | 0.194 | 0.182 |
| 950 | 0.171 | 0.158 | 0.178 | 0.189 | 0.184 | 0.193 | 0.210 | 0.195 |
| 900 | 0.188 | 0.176 | 0.198 | 0.208 | 0.202 | 0.211 | 0.226 | 0.211 |
| 850 | 0.210 | 0.196 | 0.221 | 0.231 | 0.220 | 0.232 | 0.246 | 0.233 |
| 800 | 0.237 | 0.222 | 0.248 | 0.258 | 0.243 | 0.257 | 0.271 | 0.260 |
| 750 | 0.273 | 0.252 | 0.280 | 0.291 | 0.277 | 0.288 | 0.306 | 0.291 |
| 700 | 0.315 | 0.287 | 0.318 | 0.330 | 0.320 | 0.324 | 0.349 | 0.327 |
| 650 | 0.367 | 0.330 | 0.368 | 0.380 | 0.370 | 0.374 | 0.404 | 0.370 |
| 600 | 0.433 | 0.385 | 0.444 | 0.462 | 0.428 | 0.440 | 0.471 | 0.445 |
| 550 | 0.536 | 0.469 | 0.539 | 0.564 | 0.520 | 0.534 | 0.548 | 0.540 |
| 500 | 0.724 | 0.611 | 0.772 | 0.836 | 0.742 | 0.738 | 0.742 | 0.731 |
| 450 | 1.067 | 0.894 | 1.222 | 1.346 | 1.181 | 1.144 | 1.139 | 1.081 |
| 400 | 1.860 | 1.597 | 2.172 | 2.266 | 2.066 | 1.925 | 1.923 | 1.826 |
| 350 | 3.269 | 2.862 | 3.357 | 3.482 | 3.261 | 3.180 | 3.242 | 3.140 |
| 300 | | | | | | 5.009 | 5.533 | 5.637 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 504.9 | 500.1 | 482.5 | 505.4 | 494.0 | 531.9 | 649.6 | 637.3 |
| 900 | 468.0 | 456.7 | 461.7 | 490.7 | 522.2 | 521.4 | 597.2 | 555.3 |
| 850 | 427.3 | 430.3 | 438.4 | 458.3 | 492.0 | 494.7 | 537.3 | 511.0 |
| 800 | 386.7 | 403.7 | 414.6 | 425.9 | 453.2 | 464.3 | 481.4 | 469.5 |
| 750 | 367.4 | 389.8 | 383.9 | 393.2 | 397.3 | 424.8 | 430.2 | 427.8 |
| 700 | 348.2 | 372.5 | 353.2 | 360.4 | 347.8 | 385.2 | 379.1 | 386.1 |
| 650 | 317.1 | 343.6 | 314.9 | 320.8 | 319.8 | 341.7 | 335.5 | 341.9 |
| 600 | 267.4 | 291.1 | 264.4 | 259.5 | 291.9 | 296.8 | 295.6 | 285.5 |
| 550 | 206.6 | 222.4 | 213.9 | 198.3 | 210.4 | 212.3 | 255.7 | 229.0 |
| 500 | 158.5 | 168.1 | 145.0 | 137.4 | 128.9 | 137.1 | 181.7 | 170.4 |
| 450 | 113.8 | 108.3 | 93.8 | 94.8 | 97.5 | 107.1 | 104.5 | 111.6 |
| 400 | 84.1 | 80.9 | 95.0 | 104.6 | 96.3 | 97.0 | 96.0 | 95.7 |
| 350 | 131.9 | 116.1 | 185.3 | 157.6 | 132.6 | 99.8 | 94.3 | 88.2 |
| 300 | | | | | | 158.2 | 104.7 | 109.0 |
| LONG | -82.72 | -82.53 | -82.34 | -82.14 | -82.04 | -81.85 | -81.66 | -81.55 |
| LAT | -2.53 | -4.61 | -6.64 | -8.61 | -9.62 | -11.64 | -13.56 | -14.63 |
| QUAL | 12 | 22 | 12 | 22 | 23 | 23 | 33 | 33 |

PASS 4016 AT AGASTA, 63 720

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 133337 | 133355 | 133431 | 133448 | 133524 | 133559 | 133802 |
| 1000 | 0.187 | 0.167 | 0.148 | 0.143 | 0.128 | 0.117 | 0.124 |
| 950 | 0.205 | 0.186 | 0.167 | 0.159 | 0.140 | 0.131 | 0.130 |
| 900 | 0.227 | 0.208 | 0.188 | 0.179 | 0.154 | 0.147 | 0.135 |
| 850 | 0.252 | 0.233 | 0.211 | 0.204 | 0.174 | 0.165 | 0.143 |
| 800 | 0.280 | 0.260 | 0.238 | 0.232 | 0.200 | 0.185 | 0.154 |
| 750 | 0.313 | 0.289 | 0.269 | 0.263 | 0.228 | 0.211 | 0.167 |
| 700 | 0.351 | 0.323 | 0.304 | 0.301 | 0.257 | 0.241 | 0.181 |
| 650 | 0.395 | 0.364 | 0.344 | 0.344 | 0.296 | 0.278 | 0.199 |
| 600 | 0.458 | 0.421 | 0.417 | 0.399 | 0.345 | 0.323 | 0.229 |
| 550 | 0.574 | 0.523 | 0.539 | 0.490 | 0.417 | 0.385 | 0.269 |
| 500 | 0.753 | 0.664 | 0.704 | 0.707 | 0.525 | 0.540 | 0.353 |
| 450 | 1.140 | 0.994 | 0.976 | 1.038 | 0.733 | 0.771 | 0.470 |
| 400 | 1.824 | 1.681 | 1.583 | 1.626 | 1.189 | 1.190 | 0.710 |
| 350 | 2.975 | 2.870 | 2.864 | 2.844 | 2.107 | 1.996 | 1.071 |
| 300 | 4.893 | 4.903 | 4.928 | 5.070 | 4.028 | 3.678 | 1.755 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 525.7 | 454.4 | 413.3 | 438.2 | 537.5 | 447.3 | 1162.5 |
| 900 | 499.9 | 459.7 | 413.8 | 416.3 | 461.7 | 434.7 | 974.7 |
| 850 | 484.7 | 465.2 | 414.3 | 410.2 | 413.9 | 421.5 | 872.2 |
| 800 | 469.4 | 463.2 | 415.0 | 404.2 | 385.5 | 408.4 | 769.7 |
| 750 | 452.2 | 445.1 | 415.9 | 398.1 | 378.3 | 387.1 | 666.8 |
| 700 | 434.4 | 404.4 | 416.7 | 376.4 | 373.8 | 365.2 | 556.4 |
| 650 | 366.9 | 360.8 | 314.7 | 349.2 | 339.4 | 329.7 | 450.0 |
| 600 | 288.0 | 309.7 | 260.5 | 282.5 | 300.0 | 283.6 | 356.5 |
| 550 | 227.0 | 244.4 | 226.5 | 221.0 | 250.6 | 236.2 | 262.9 |
| 500 | 169.2 | 179.2 | 192.4 | 171.9 | 190.2 | 181.6 | 209.9 |
| 450 | 128.0 | 114.4 | 153.4 | 127.5 | 126.0 | 133.1 | 158.2 |
| 400 | 105.3 | 96.8 | 98.1 | 107.2 | 95.5 | 113.3 | 134.7 |
| 350 | 102.8 | 94.0 | 87.2 | 84.6 | 81.6 | 89.3 | 114.4 |
| 300 | 96.9 | 97.6 | 104.3 | 105.3 | 82.6 | 80.9 | 91.0 |
| LONG | -81.07 | -80.95 | -80.71 | -80.60 | -80.34 | -80.09 | -79.04 |
| LAT | -19.01 | -20.02 | -22.04 | -23.00 | -25.01 | -26.97 | -33.86 |
| QUAL | 33 | 13 | 13 | 13 | 23 | 23 | 22 |

PASS 4022 AT AGASTA, 63 721

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 4638 | 4731 | 5233 | 5308 | 5401 |
| 1000 | 0.091 | 0.082 | 0.100 | 0.100 | 0.102 |
| 950 | 0.102 | 0.092 | 0.110 | 0.109 | 0.113 |
| 900 | 0.116 | 0.100 | 0.121 | 0.122 | 0.127 |
| 850 | 0.127 | 0.109 | 0.135 | 0.139 | 0.143 |
| 800 | 0.138 | 0.118 | 0.156 | 0.166 | 0.162 |
| 750 | 0.149 | 0.128 | 0.195 | 0.199 | 0.201 |
| 700 | 0.161 | 0.143 | 0.245 | 0.237 | 0.254 |
| 650 | 0.173 | 0.167 | 0.308 | 0.309 | 0.321 |
| 600 | 0.187 | 0.198 | 0.384 | 0.412 | 0.454 |
| 550 | 0.239 | 0.236 | 0.471 | 0.573 | 0.659 |
| 500 | 0.324 | 0.331 | 0.678 | 0.783 | 0.987 |
| 450 | 0.486 | 0.518 | 1.053 | 1.204 | 1.516 |
| 400 | 0.814 | 0.850 | 1.533 | 1.819 | 2.375 |
| 350 | 1.299 | 1.404 | 2.538 | 2.724 | 3.643 |
| 300 | | 2.248 | 4.172 | | |

| HEIGHT | SCALE HEIGHT, KM | | | | |
|---|---|---|---|---|---|
| 950 | | | 509.3 | 500.5 | 452.8 |
| 900 | | 571.3 | 448.5 | 416.8 | 413.9 |
| 850 | 593.0 | 581.5 | 387.2 | 346.9 | 364.1 |
| 800 | 579.5 | 531.5 | 332.3 | 293.5 | 314.5 |
| 750 | 548.2 | 481.4 | 293.1 | 261.5 | 273.8 |
| 700 | 517.0 | 427.9 | 253.9 | 234.4 | 233.1 |
| 650 | 485.8 | 368.3 | 223.8 | 198.0 | 192.5 |
| 600 | 444.7 | 308.7 | 206.7 | 165.8 | 155.7 |
| 550 | 249.6 | 249.1 | 189.7 | 154.6 | 131.7 |
| 500 | 150.0 | 171.7 | 154.2 | 143.4 | 122.4 |
| 450 | 116.4 | 107.0 | 119.3 | 127.4 | 116.9 |
| 400 | 104.6 | 102.4 | 118.2 | 123.7 | 112.8 |
| 350 | 124.0 | 104.1 | 99.1 | 127.6 | 162.2 |
| 300 | | 123.8 | 118.3 | | |

| | | | | | |
|---|---|---|---|---|---|
| LONG | -77.89 | -77.52 | -75.76 | -75.28 | -75.29 |
| LAT | -24.37 | -21.38 | -4.34 | -2.36 | 0.63 |
| QUAL | 33 | 33 | 33 | 33 | 33 |

PASS 4022 AT QUITOE, 63 721

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 5454 | 5911 | 5947 | 10022 | 10056 |
| 1000 | 0.096 | 0.092 | 0.087 | 0.086 | 0.073 |
| 950 | 0.104 | 0.098 | 0.096 | 0.092 | 0.081 |
| 900 | 0.114 | 0.104 | 0.103 | 0.099 | 0.088 |
| 850 | 0.129 | 0.112 | 0.110 | 0.108 | 0.096 |
| 800 | 0.159 | 0.122 | 0.122 | 0.118 | 0.108 |
| 750 | 0.200 | 0.136 | 0.138 | 0.136 | 0.123 |
| 700 | 0.250 | 0.154 | 0.159 | 0.164 | 0.142 |
| 650 | 0.302 | 0.181 | 0.187 | 0.200 | 0.166 |
| 600 | 0.400 | 0.231 | 0.221 | 0.244 | 0.213 |
| 550 | 0.617 | 0.323 | 0.288 | 0.333 | 0.290 |
| 500 | 1.120 | 0.455 | 0.478 | 0.450 | 0.418 |
| 450 | 1.925 | 0.758 | 0.752 | 0.721 | 0.701 |
| 400 | 3.143 | 1.234 | 1.226 | 1.172 | 1.141 |
| 350 | 4.586 | 1.907 | 1.906 | | |
| 300 | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | |
|---|---|---|---|---|---|
| 950 | 529.3 | 768.4 | 611.1 | 681.7 | 584.9 |
| 900 | 438.8 | 707.5 | 674.0 | 609.0 | 562.6 |
| 850 | 356.0 | 624.1 | 576.9 | 529.8 | 505.5 |
| 800 | 320.3 | 539.1 | 495.7 | 450.6 | 421.2 |
| 750 | 284.6 | 453.3 | 414.4 | 385.8 | 353.4 |
| 700 | 249.5 | 366.4 | 349.9 | 332.7 | 314.5 |
| 650 | 217.2 | 277.8 | 300.8 | 279.6 | 275.5 |
| 600 | 164.1 | 193.7 | 251.8 | 226.5 | 203.1 |
| 550 | 104.0 | 143.1 | 189.2 | 183.0 | 152.9 |
| 500 | 87.6 | 125.7 | 103.4 | 140.2 | 124.6 |
| 450 | 98.0 | 102.6 | 108.1 | 109.3 | 100.1 |
| 400 | 108.7 | 108.7 | 104.5 | 106.0 | 114.3 |
| 350 | 168.2 | 125.5 | 126.7 | | |
| 300 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LONG | -75.02 | -73.56 | -73.33 | -73.10 | -72.87 |
| LAT | 3.62 | 18.12 | 20.14 | 22.11 | 24.02 |
| QUAL | 33 | 23 | 23 | 23 | 33 |

PASS 4023 AT OTTAWA, 63 721

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 10226 | 10302 | 10337 | 10359 | 10448 | 10523 | 10617 | 10653 |
| 1000 | 0.098 | 0.072 | 0.061 | 0.065 | 0.077 | 0.082 | 0.098 | 0.099 |
| 950 | 0.110 | 0.083 | 0.071 | 0.078 | 0.089 | 0.093 | 0.111 | 0.113 |
| 900 | 0.121 | 0.094 | 0.086 | 0.090 | 0.104 | 0.108 | 0.128 | 0.132 |
| 850 | 0.137 | 0.110 | 0.106 | 0.108 | 0.123 | 0.128 | 0.149 | 0.154 |
| 800 | 0.158 | 0.131 | 0.132 | 0.132 | 0.148 | 0.154 | 0.178 | 0.184 |
| 750 | 0.183 | 0.157 | 0.163 | 0.167 | 0.182 | 0.188 | 0.215 | 0.220 |
| 700 | 0.229 | 0.193 | 0.203 | 0.212 | 0.227 | 0.233 | 0.269 | 0.274 |
| 650 | 0.308 | 0.247 | 0.258 | 0.266 | 0.281 | 0.286 | 0.336 | 0.343 |
| 600 | 0.416 | 0.338 | 0.361 | 0.329 | 0.356 | 0.368 | 0.417 | 0.428 |
| 550 | 0.576 | 0.461 | 0.498 | 0.476 | 0.555 | 0.560 | 0.510 | 0.527 |
| 500 | 0.779 | 0.712 | 0.754 | 0.762 | 0.828 | 0.832 | 0.728 | 0.721 |
| 450 | | 1.122 | 1.139 | 1.214 | 1.266 | 1.277 | 1.185 | 1.205 |
| 400 | | 1.772 | 1.889 | 2.030 | 2.052 | 2.022 | 1.905 | 1.904 |
| 350 | | 2.808 | 2.940 | 3.178 | | 2.978 | | 3.003 |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 460.4 | 357.2 | 297.6 | 298.1 | 325.3 | 371.5 | 373.0 | 344.2 |
| 900 | 441.0 | 344.4 | 259.9 | 290.8 | 305.5 | 328.8 | 336.1 | 325.1 |
| 850 | 389.7 | 309.7 | 247.4 | 259.2 | 282.8 | 292.1 | 302.9 | 305.7 |
| 800 | 334.9 | 281.0 | 242.0 | 226.8 | 256.4 | 263.0 | 272.3 | 275.7 |
| 750 | 277.2 | 257.8 | 231.5 | 217.3 | 234.4 | 240.3 | 245.5 | 245.8 |
| 700 | 232.4 | 223.9 | 208.1 | 207.8 | 217.8 | 223.2 | 233.6 | 232.5 |
| 650 | 198.3 | 179.5 | 185.6 | 198.3 | 201.2 | 206.2 | 221.6 | 220.1 |
| 600 | 166.7 | 162.3 | 165.3 | 188.8 | 182.8 | 185.3 | 209.7 | 207.8 |
| 550 | 156.8 | 145.1 | 145.1 | 160.8 | 150.6 | 150.7 | 197.7 | 195.5 |
| 500 | 146.9 | 124.9 | 129.2 | 111.7 | 121.9 | 122.8 | 158.6 | 167.4 |
| 450 | | 110.6 | 113.3 | 103.7 | 113.6 | 115.6 | 103.8 | 103.4 |
| 400 | | 110.9 | 107.8 | 108.7 | 111.9 | 127.5 | 107.9 | 111.7 |
| 350 | | 126.3 | 144.8 | 145.8 | | 171.1 | | 107.7 |
| 300 | | | | | | | | |
| LONG | -72.18 | -71.88 | -71.57 | -71.37 | -70.87 | -70.49 | -69.84 | -69.36 |
| LAT | 29.07 | 31.08 | 33.04 | 34.26 | 37.00 | 38.95 | 41.95 | 43.94 |
| QUAL | 33 | 23 | 33 | 33 | 23 | 23 | 23 | 23 |

PASS 4023 AT OTTAWA, 63 721

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 10728 | 10800 | 10915 | 10939 | 11026 | 11101 | 11136 | 11212 |
| 1000 | 0.101 | 0.107 | 0.132 | 0.111 | 0.148 | 0.105 | 0.110 | 0.125 |
| 950 | 0.116 | 0.121 | 0.149 | 0.126 | 0.169 | 0.120 | 0.124 | 0.140 |
| 900 | 0.136 | 0.141 | 0.169 | 0.146 | 0.193 | 0.139 | 0.140 | 0.155 |
| 850 | 0.161 | 0.166 | 0.194 | 0.172 | 0.220 | 0.163 | 0.159 | 0.177 |
| 800 | 0.194 | 0.199 | 0.228 | 0.206 | 0.257 | 0.191 | 0.181 | 0.205 |
| 750 | 0.233 | 0.238 | 0.269 | 0.246 | 0.302 | 0.223 | 0.206 | 0.239 |
| 700 | 0.287 | 0.293 | 0.320 | 0.299 | 0.360 | 0.263 | 0.234 | 0.280 |
| 650 | 0.361 | 0.363 | 0.381 | 0.367 | 0.428 | 0.309 | 0.272 | 0.326 |
| 600 | 0.451 | 0.446 | 0.481 | 0.449 | 0.520 | 0.384 | 0.324 | 0.400 |
| 550 | 0.557 | 0.543 | 0.639 | 0.625 | 0.688 | 0.493 | 0.388 | 0.505 |
| 500 | 0.806 | 0.764 | 0.869 | 0.904 | 0.902 | 0.630 | 0.475 | 0.634 |
| 450 | 1.270 | 1.138 | 1.226 | 1.314 | 1.145 | 0.793 | 0.616 | 0.792 |
| 400 | 1.967 | 1.737 | 1.804 | 1.975 | 1.419 | 0.983 | 0.792 | 0.998 |
| 350 | 3.114 | 2.865 | 2.659 | 3.077 | 1.782 | 1.203 | 1.038 | 1.239 |
| 300 | | | | | | 1.460 | 1.354 | 1.539 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 351.3 | 390.8 | 402.1 | 371.0 | 375.0 | 364.1 | 420.7 | 441.9 |
| 900 | 322.7 | 342.2 | 368.7 | 334.7 | 361.1 | 340.8 | 402.1 | 406.2 |
| 850 | 294.1 | 301.7 | 339.5 | 300.6 | 344.9 | 324.1 | 395.0 | 379.6 |
| 800 | 272.1 | 278.8 | 322.1 | 285.0 | 322.1 | 317.6 | 388.2 | 353.3 |
| 750 | 250.6 | 255.9 | 304.7 | 269.3 | 299.4 | 308.2 | 365.8 | 327.4 |
| 700 | 233.7 | 242.5 | 277.0 | 249.6 | 277.9 | 284.8 | 343.4 | 302.1 |
| 650 | 219.7 | 230.3 | 245.7 | 226.6 | 256.3 | 261.3 | 318.6 | 276.9 |
| 600 | 205.7 | 218.2 | 215.5 | 203.7 | 236.5 | 247.4 | 291.8 | 261.0 |
| 550 | 191.8 | 206.0 | 185.9 | 177.8 | 222.9 | 238.2 | 265.0 | 250.0 |
| 500 | 157.0 | 172.0 | 160.5 | 150.7 | 209.2 | 229.0 | 240.1 | 238.9 |
| 450 | 112.4 | 123.3 | 142.4 | 130.7 | 215.0 | 232.0 | 219.8 | 230.8 |
| 400 | 113.0 | 109.7 | 132.8 | 118.6 | 224.1 | 243.2 | 199.5 | 232.9 |
| 350 | 109.0 | 112.1 | 130.7 | 128.9 | 255.4 | 253.6 | 183.8 | 234.9 |
| 300 | | | | | | 262.1 | 169.3 | 225.5 |
| LONG | -68.84 | -68.35 | -66.96 | -66.45 | -65.35 | -64.45 | -63.36 | -62.14 |
| LAT | 45.87 | 47.64 | 51.76 | 53.07 | 55.62 | 57.51 | 59.39 | 61.30 |
| QUAL | 23 | 23 | 33 | 33 | 32 | 33 | 23 | 23 |

PASS 4023 AT OTTAWA, 63 721

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 11247 |
| 1000 | 0.148 |
| 950 | 0.164 |
| 900 | 0.183 |
| 850 | 0.207 |
| 800 | 0.236 |
| 750 | 0.272 |
| 700 | 0.316 |
| 650 | 0.366 |
| 600 | 0.453 |
| 550 | 0.572 |
| 500 | 0.717 |
| 450 | 0.885 |
| 400 | 1.071 |
| 350 | 1.270 |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 472.0 |
| 900 | 430.3 |
| 850 | 393.8 |
| 800 | 358.6 |
| 750 | 334.1 |
| 700 | 310.0 |
| 650 | 285.9 |
| 600 | 273.7 |
| 550 | 264.6 |
| 500 | 255.5 |
| 450 | 263.9 |
| 400 | 293.1 |
| 350 | 336.6 |
| 300 | |

| | |
|---|---|
| LONG | -60.78 |
| LAT | 63.15 |
| QUAL | 33 |

PASS 4023 AT RESLUT, 63 721

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 11212 | 11230 | 11248 | 11304 | 11322 | 11340 | 11358 | 11416 |
| 1000 | 0.108 | 0.108 | 0.116 | 0.139 | 0.150 | 0.140 | 0.142 | 0.132 |
| 950 | 0.129 | 0.128 | 0.136 | 0.153 | 0.175 | 0.163 | 0.166 | 0.153 |
| 900 | 0.150 | 0.147 | 0.157 | 0.166 | 0.198 | 0.184 | 0.191 | 0.171 |
| 850 | 0.171 | 0.171 | 0.180 | 0.184 | 0.222 | 0.204 | 0.219 | 0.199 |
| 800 | 0.195 | 0.199 | 0.208 | 0.205 | 0.244 | 0.224 | 0.252 | 0.232 |
| 750 | 0.226 | 0.236 | 0.239 | 0.229 | 0.266 | 0.249 | 0.291 | 0.269 |
| 700 | 0.261 | 0.279 | 0.281 | 0.256 | 0.290 | 0.277 | 0.333 | 0.315 |
| 650 | 0.300 | 0.330 | 0.329 | 0.286 | 0.317 | 0.314 | 0.394 | 0.375 |
| 600 | 0.378 | 0.386 | 0.384 | 0.330 | 0.359 | 0.370 | 0.483 | 0.443 |
| 550 | 0.477 | 0.484 | 0.488 | 0.400 | 0.419 | 0.441 | 0.589 | 0.521 |
| 500 | 0.596 | 0.620 | 0.624 | 0.485 | 0.494 | 0.535 | 0.722 | 0.651 |
| 450 | 0.758 | 0.785 | 0.788 | 0.586 | 0.585 | 0.663 | 0.924 | 0.823 |
| 400 | 0.959 | 0.990 | 0.998 | 0.730 | 0.708 | 0.818 | 1.179 | 1.037 |
| 350 | 1.224 | 1.236 | 1.255 | 0.895 | 0.876 | 1.050 | 1.503 | 1.305 |
| 300 | | 1.483 | | | | 1.340 | 1.818 | 1.574 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 900 | | 319.3 | 339.2 | 499.7 | | | 343.1 | 341.2 |
| 850 | 343.3 | 314.0 | 343.5 | 484.2 | 487.5 | 467.0 | 344.2 | 335.2 |
| 800 | 347.6 | 308.5 | 336.7 | 468.7 | 525.4 | 480.2 | 334.3 | 329.1 |
| 750 | 327.2 | 299.0 | 329.4 | 438.9 | 541.9 | 450.1 | 324.3 | 323.1 |
| 700 | 306.9 | 289.4 | 307.9 | 406.9 | 497.0 | 407.3 | 314.4 | 313.7 |
| 650 | 286.6 | 279.9 | 287.4 | 374.9 | 452.2 | 365.9 | 298.7 | 298.9 |
| 600 | 265.8 | 270.3 | 266.9 | 344.5 | 412.1 | 327.6 | 277.2 | 284.1 |
| 550 | 245.0 | 251.5 | 252.5 | 316.3 | 374.0 | 289.2 | 255.6 | 269.3 |
| 500 | 224.5 | 229.5 | 238.7 | 288.0 | 335.8 | 260.3 | 235.1 | 249.2 |
| 450 | 216.4 | 216.9 | 224.8 | 259.8 | 294.1 | 243.0 | 218.4 | 227.9 |
| 400 | 211.1 | 223.6 | 221.5 | 259.4 | 237.7 | 225.7 | 211.0 | 216.7 |
| 350 | 212.5 | 254.2 | 268.9 | 280.8 | 766.9 | 218.9 | 237.3 | 227.7 |
| 300 | | 586.2 | | | | 276.8 | 369.6 | 437.8 |
| LONG | -62.14 | -61.44 | -60.75 | -60.08 | -59.18 | -58.29 | -57.39 | -56.24 |
| LAT | 61.30 | 62.25 | 63.21 | 64.05 | 64.98 | 65.91 | 66.85 | 67.76 |
| QUAL | 33 | 23 | 22 | 22 | 22 | 22 | 22 | 22 |

PASS 4023 AT RESLUT, 63 721

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 11434 | 11452 | 11508 | 11526 | 11614 | 11632 | 11650 | 11708 |
| 1000 | 0.128 | 0.132 | 0.130 | 0.134 | 0.118 | 0.148 | 0.118 | 0.132 |
| 950 | 0.151 | 0.153 | 0.156 | 0.160 | 0.139 | 0.173 | 0.140 | 0.157 |
| 900 | 0.171 | 0.173 | 0.180 | 0.185 | 0.157 | 0.196 | 0.162 | 0.181 |
| 850 | 0.195 | 0.195 | 0.206 | 0.214 | 0.179 | 0.227 | 0.185 | 0.212 |
| 800 | 0.221 | 0.221 | 0.236 | 0.246 | 0.208 | 0.262 | 0.217 | 0.250 |
| 750 | 0.255 | 0.252 | 0.270 | 0.284 | 0.242 | 0.303 | 0.255 | 0.292 |
| 700 | 0.294 | 0.292 | 0.310 | 0.328 | 0.289 | 0.357 | 0.299 | 0.345 |
| 650 | 0.338 | 0.339 | 0.359 | 0.378 | 0.345 | 0.419 | 0.362 | 0.414 |
| 600 | 0.424 | 0.394 | 0.436 | 0.452 | 0.411 | 0.491 | 0.439 | 0.495 |
| 550 | 0.534 | 0.499 | 0.529 | 0.555 | 0.485 | 0.595 | 0.530 | 0.588 |
| 500 | 0.669 | 0.631 | 0.639 | 0.678 | 0.617 | 0.757 | 0.635 | 0.751 |
| 450 | 0.835 | 0.801 | 0.792 | 0.853 | 0.791 | 0.953 | 0.791 | 0.958 |
| 400 | 1.052 | 1.021 | 0.996 | 1.087 | 1.019 | 1.187 | 1.018 | 1.205 |
| 350 | 1.350 | 1.307 | 1.276 | 1.386 | 1.308 | 1.469 | 1.290 | 1.477 |
| 300 | | | 1.577 | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 900 | 369.2 | 383.8 | 343.9 | 330.2 | 345.5 | 345.2 | 315.6 | 307.0 |
| 850 | 367.2 | 383.7 | 356.6 | 337.5 | 341.5 | 338.4 | 325.2 | 307.0 |
| 800 | 357.0 | 369.8 | 351.4 | 344.9 | 321.9 | 333.6 | 312.6 | 304.1 |
| 750 | 336.2 | 351.1 | 338.3 | 334.0 | 302.8 | 327.8 | 299.9 | 301.1 |
| 700 | 313.4 | 328.7 | 325.2 | 320.1 | 292.5 | 311.9 | 287.3 | 294.4 |
| 650 | 294.6 | 306.3 | 311.2 | 306.1 | 282.3 | 295.9 | 278.4 | 280.3 |
| 600 | 272.1 | 283.6 | 293.8 | 287.1 | 272.0 | 280.0 | 270.3 | 266.1 |
| 550 | 249.3 | 256.6 | 276.5 | 265.1 | 261.7 | 263.5 | 262.2 | 251.9 |
| 500 | 229.8 | 229.5 | 259.2 | 243.0 | 236.5 | 246.3 | 254.1 | 238.8 |
| 450 | 221.9 | 213.2 | 239.3 | 226.6 | 207.8 | 229.1 | 235.8 | 225.7 |
| 400 | 218.5 | 208.9 | 217.8 | 213.2 | 203.1 | 234.1 | 208.5 | 236.3 |
| 350 | 246.8 | 206.3 | 215.0 | 236.0 | 223.2 | 248.5 | 230.1 | 278.6 |
| 300 | | | 306.1 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -55.07 | -53.89 | -52.67 | -51.08 | -46.37 | -44.16 | -41.96 | -39.33 |
| LAT | 68.67 | 69.58 | 70.37 | 71.23 | 73.50 | 74.30 | 75.10 | 75.86 |
| QUAL | 22 | 22 | 22 | 22 | 22 | 22 | 22 | 23 |

PASS 4023 AT RESLUT, 63 721

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 11726 | 11744 | 11802 | 11818 | 11836 | 11854 | 11912 | 11948 |
| 1000 | 0.154 | 0.137 | 0.148 | 0.144 | 0.210 | 0.167 | 0.185 | 0.191 |
| 950 | 0.175 | 0.158 | 0.177 | 0.170 | 0.242 | 0.193 | 0.213 | 0.211 |
| 900 | 0.195 | 0.181 | 0.205 | 0.197 | 0.284 | 0.216 | 0.236 | 0.228 |
| 850 | 0.223 | 0.209 | 0.231 | 0.227 | 0.298 | 0.243 | 0.270 | 0.255 |
| 800 | 0.257 | 0.241 | 0.260 | 0.267 | 0.337 | 0.281 | 0.309 | 0.288 |
| 750 | 0.296 | 0.279 | 0.298 | 0.312 | 0.384 | 0.326 | 0.354 | 0.328 |
| 700 | 0.350 | 0.328 | 0.342 | 0.364 | 0.445 | 0.379 | 0.413 | 0.378 |
| 650 | 0.415 | 0.386 | 0.391 | 0.435 | 0.516 | 0.449 | 0.482 | 0.435 |
| 600 | 0.490 | 0.451 | 0.476 | 0.525 | 0.598 | 0.537 | 0.561 | 0.500 |
| 550 | 0.576 | 0.543 | 0.601 | 0.630 | 0.717 | 0.638 | 0.654 | 0.573 |
| 500 | 0.699 | 0.674 | 0.754 | 0.750 | 0.895 | 0.752 | 0.811 | 0.697 |
| 450 | 0.891 | 0.838 | 0.941 | 0.952 | 1.114 | 0.963 | 0.999 | 0.859 |
| 400 | 1.125 | 1.045 | 1.176 | 1.202 | 1.380 | 1.225 | 1.236 | 1.044 |
| 350 | 1.392 | | | | | | | 1.240 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 378.0 | 340.0 | | | | 367.7 | | 489.4 |
| 900 | 384.4 | 345.1 | 383.6 | 313.0 | 417.1 | 375.7 | 384.0 | 490.1 |
| 850 | 364.9 | 340.0 | 376.1 | 319.9 | 398.9 | 370.4 | 372.4 | 448.7 |
| 800 | 345.5 | 335.0 | 373.2 | 313.0 | 380.7 | 354.3 | 360.8 | 407.3 |
| 750 | 326.1 | 326.8 | 351.7 | 306.1 | 362.3 | 338.1 | 349.0 | 380.9 |
| 700 | 314.1 | 316.0 | 330.2 | 299.2 | 343.7 | 322.0 | 335.4 | 366.3 |
| 650 | 302.7 | 305.3 | 308.7 | 289.6 | 325.1 | 306.5 | 321.8 | 351.7 |
| 600 | 291.3 | 290.5 | 287.7 | 279.1 | 306.5 | 291.2 | 308.2 | 337.0 |
| 550 | 280.0 | 271.9 | 267.2 | 268.6 | 281.4 | 275.9 | 293.3 | 322.4 |
| 500 | 260.3 | 247.1 | 246.7 | 258.1 | 249.8 | 260.5 | 266.9 | 289.5 |
| 450 | 228.6 | 235.0 | 238.2 | 226.6 | 237.1 | 235.4 | 240.7 | 250.8 |
| 400 | 228.0 | 240.6 | 259.2 | 220.6 | 247.6 | 232.9 | 235.1 | 276.3 |
| 350 | 314.8 | | | | | | | 337.2 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -36.19 | -33.05 | -29.77 | -25.85 | -21.44 | -17.03 | -11.79 | -0.48 |
| LAT | 76.56 | 77.27 | 77.95 | 78.41 | 78.94 | 79.46 | 79.81 | 80.30 |
| QUAL | 23 | 22 | 22 | 22 | 22 | 22 | 22 | 22 |

PASS 4023 AT RESLUT, 63 721

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 12006 | 12022 | 12040 | 12058 | 12116 | 12134 | 12152 | 12210 |
| 1000 | 0.195 | 0.186 | 0.201 | 0.189 | 0.182 | 0.220 | 0.140 | 0.150 |
| 950 | 0.220 | 0.208 | 0.235 | 0.217 | 0.214 | 0.250 | 0.164 | 0.174 |
| 900 | 0.237 | 0.228 | 0.263 | 0.240 | 0.241 | 0.276 | 0.189 | 0.198 |
| 850 | 0.263 | 0.249 | 0.295 | 0.266 | 0.274 | 0.309 | 0.215 | 0.230 |
| 800 | 0.292 | 0.276 | 0.328 | 0.294 | 0.315 | 0.346 | 0.247 | 0.267 |
| 750 | 0.328 | 0.308 | 0.369 | 0.330 | 0.363 | 0.396 | 0.286 | 0.314 |
| 700 | 0.374 | 0.343 | 0.416 | 0.372 | 0.421 | 0.457 | 0.330 | 0.372 |
| 650 | 0.427 | 0.397 | 0.470 | 0.419 | 0.489 | 0.526 | 0.381 | 0.441 |
| 600 | 0.488 | 0.477 | 0.542 | 0.472 | 0.568 | 0.605 | 0.467 | 0.518 |
| 550 | 0.557 | 0.573 | 0.647 | 0.575 | 0.656 | 0.733 | 0.571 | 0.615 |
| 500 | 0.661 | 0.692 | 0.774 | 0.702 | 0.809 | 0.908 | 0.698 | 0.772 |
| 450 | 0.853 | 0.840 | 0.946 | 0.853 | 0.997 | 1.121 | 0.880 | 0.963 |
| 400 | 1.060 | 1.013 | 1.171 | 1.036 | 1.222 | 1.379 | 1.106 | 1.206 |
| 350 | 1.280 | 1.235 | 1.432 | 1.247 | | 1.687 | | 1.506 |
| 300 | | | | | | | | 1.830 |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 900 | 481.1 | 501.3 | 409.3 | 442.9 | 357.5 | 432.3 | 353.8 | 337.5 |
| 850 | 456.2 | 485.2 | 417.7 | 444.3 | 362.8 | 410.5 | 352.2 | 327.9 |
| 800 | 431.4 | 455.2 | 426.1 | 443.0 | 355.8 | 389.3 | 341.8 | 318.4 |
| 750 | 408.7 | 425.2 | 408.0 | 418.9 | 348.7 | 371.6 | 330.3 | 309.5 |
| 700 | 388.1 | 395.2 | 387.1 | 394.9 | 338.6 | 353.9 | 318.8 | 301.3 |
| 650 | 367.5 | 362.2 | 366.3 | 370.8 | 324.6 | 336.2 | 306.8 | 293.2 |
| 600 | 346.9 | 326.9 | 340.6 | 346.8 | 310.6 | 318.5 | 293.7 | 285.1 |
| 550 | 326.3 | 291.5 | 308.6 | 321.2 | 296.6 | 288.8 | 260.7 | 273.2 |
| 500 | 288.3 | 271.9 | 276.7 | 295.6 | 277.3 | 253.6 | 239.4 | 246.7 |
| 450 | 242.7 | 268.9 | 253.8 | 270.0 | 258.0 | 240.8 | 226.6 | 226.7 |
| 400 | 255.5 | 265.9 | 248.7 | 273.1 | 263.4 | 243.6 | 208.3 | 227.2 |
| 350 | 301.3 | 262.2 | 367.6 | 341.6 | | 338.6 | | 237.5 |
| 300 | | | | | | | | 352.7 |
| LONG | 5.28 | 10.59 | 16.36 | 22.53 | 27.68 | 32.72 | 37.77 | 42.06 |
| LAT | 80.44 | 80.36 | 80.26 | 80.17 | 79.79 | 79.38 | 78.97 | 78.44 |
| QUAL | 23 | 23 | 22 | 22 | 22 | 22 | 22 | 22 |

PASS 4023 AT RESLUT, 63 721

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 12226 | 12244 |
| 1000 | 0.148 | 0.160 |
| 950 | 0.176 | 0.185 |
| 900 | 0.203 | 0.213 |
| 850 | 0.235 | 0.248 |
| 800 | 0.273 | 0.290 |
| 750 | 0.316 | 0.339 |
| 700 | 0.369 | 0.394 |
| 650 | 0.435 | 0.464 |
| 600 | 0.512 | 0.546 |
| 550 | 0.610 | 0.639 |
| 500 | 0.769 | 0.783 |
| 450 | 0.971 | 0.985 |
| 400 | 1.247 | 1.254 |
| 350 | | 1.618 |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | | 324.8 |
| 900 | 318.8 | 328.0 |
| 850 | 325.4 | 326.1 |
| 800 | 324.7 | 326.3 |
| 750 | 324.0 | 324.6 |
| 700 | 316.1 | 322.8 |
| 650 | 299.8 | 309.5 |
| 600 | 283.5 | 293.7 |
| 550 | 264.0 | 277.8 |
| 500 | 235.2 | 254.1 |
| 450 | 213.4 | 226.2 |
| 400 | 212.5 | 218.0 |
| 350 | | 230.1 |
| 300 | | |

| | | |
|---|---|---|
| LONG | 45.35 | 49.05 |
| LAT | 77.88 | 77.25 |
| QUAL | 22 | 22 |

PASS 4043 AT RESLUT, 63 722

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 123010 | 123028 | 123046 | 123102 | 123120 | 123138 | 123156 | 123224 |
| 1000 | 0.066 | 0.079 | 0.079 | 0.092 | 0.078 | 0.113 | 0.118 | 0.108 |
| 950 | 0.077 | 0.092 | 0.093 | 0.104 | 0.092 | 0.131 | 0.134 | 0.125 |
| 900 | 0.090 | 0.106 | 0.111 | 0.119 | 0.108 | 0.151 | 0.153 | 0.144 |
| 850 | 0.106 | 0.122 | 0.131 | 0.137 | 0.127 | 0.174 | 0.176 | 0.166 |
| 800 | 0.127 | 0.140 | 0.153 | 0.160 | 0.149 | 0.203 | 0.204 | 0.192 |
| 750 | 0.152 | 0.166 | 0.181 | 0.188 | 0.174 | 0.239 | 0.240 | 0.221 |
| 700 | 0.181 | 0.201 | 0.214 | 0.222 | 0.205 | 0.285 | 0.283 | 0.264 |
| 650 | 0.220 | 0.243 | 0.256 | 0.268 | 0.242 | 0.348 | 0.334 | 0.317 |
| 600 | 0.268 | 0.292 | 0.318 | 0.324 | 0.286 | 0.424 | 0.404 | 0.379 |
| 550 | 0.328 | 0.364 | 0.393 | 0.388 | 0.365 | 0.514 | 0.536 | 0.485 |
| 500 | 0.366 | 0.481 | 0.483 | 0.502 | 0.467 | 0.651 | 0.701 | 0.634 |
| 450 | 0.490 | 0.622 | 0.586 | 0.669 | 0.625 | 0.867 | 0.909 | 0.817 |
| 400 | 0.665 | 0.794 | 0.781 | 0.873 | 0.831 | 1.144 | 1.175 | 1.072 |
| 350 | 0.878 | 1.053 | 1.029 | 1.126 | 1.111 | 1.505 | 1.489 | 1.399 |
| 300 | 1.149 | 1.402 | 1.226 | 1.421 | 1.451 | 1.647 | 1.816 | 1.760 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 322.1 | 343.0 | 317.1 | 386.8 | 305.4 | 351.9 | 388.5 | 347.3 |
| 900 | 305.9 | 338.5 | 298.2 | 362.2 | 311.3 | 340.6 | 366.4 | 345.3 |
| 850 | 291.5 | 323.4 | 301.2 | 340.2 | 317.6 | 330.9 | 342.0 | 339.2 |
| 800 | 284.4 | 308.3 | 304.3 | 320.7 | 313.0 | 310.8 | 316.2 | 323.8 |
| 750 | 277.3 | 293.3 | 288.7 | 302.0 | 306.4 | 289.4 | 297.3 | 308.4 |
| 700 | 270.2 | 278.4 | 272.7 | 283.6 | 291.1 | 272.0 | 280.5 | 287.2 |
| 650 | 262.0 | 263.4 | 259.5 | 267.7 | 274.9 | 260.3 | 263.6 | 266.1 |
| 600 | 253.7 | 248.5 | 251.5 | 251.7 | 258.8 | 248.6 | 246.2 | 245.0 |
| 550 | 245.4 | 234.6 | 243.5 | 235.8 | 224.8 | 236.9 | 227.0 | 228.7 |
| 500 | 237.1 | 222.3 | 235.5 | 222.3 | 190.6 | 219.2 | 207.8 | 214.0 |
| 450 | 224.5 | 210.0 | 227.5 | 209.9 | 184.5 | 194.9 | 203.0 | 199.4 |
| 400 | 206.8 | 196.7 | 242.2 | 197.4 | 179.7 | 196.5 | 219.2 | 204.1 |
| 350 | 189.1 | 174.6 | 259.4 | 215.2 | 191.5 | 229.5 | 235.5 | 216.2 |
| 300 | 212.6 | 175.6 | 272.6 | 234.9 | 291.7 | 307.3 | 268.2 | 301.4 |
| LONG | -174.05 | -168.07 | -162.09 | -156.81 | -151.17 | -145.53 | -139.88 | -132.76 |
| LAT | 80.23 | 80.32 | 80.40 | 80.44 | 80.19 | 79.93 | 79.67 | 78.91 |
| QUAL | 33 | 23 | 22 | 22 | 31 | 22 | 33 | 33 |

PASS 4043 AT RESLUT, 63 722

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 123232 | 123250 | 123308 | 123324 | 123342 | 123400 | 123418 | 123436 |
| 1000 | 0.100 | 0.112 | 0.128 | 0.138 | 0.161 | 0.124 | 0.087 | 0.083 |
| 950 | 0.116 | 0.130 | 0.148 | 0.159 | 0.180 | 0.141 | 0.100 | 0.093 |
| 900 | 0.135 | 0.152 | 0.170 | 0.183 | 0.202 | 0.160 | 0.117 | 0.106 |
| 850 | 0.158 | 0.172 | 0.195 | 0.210 | 0.231 | 0.183 | 0.137 | 0.124 |
| 800 | 0.185 | 0.197 | 0.226 | 0.244 | 0.270 | 0.212 | 0.160 | 0.147 |
| 750 | 0.219 | 0.226 | 0.263 | 0.284 | 0.318 | 0.248 | 0.187 | 0.176 |
| 700 | 0.259 | 0.265 | 0.311 | 0.341 | 0.380 | 0.293 | 0.218 | 0.213 |
| 650 | 0.305 | 0.325 | 0.383 | 0.411 | 0.462 | 0.346 | 0.266 | 0.257 |
| 600 | 0.371 | 0.400 | 0.470 | 0.496 | 0.559 | 0.425 | 0.344 | 0.309 |
| 550 | 0.469 | 0.512 | 0.573 | 0.625 | 0.672 | 0.541 | 0.443 | 0.367 |
| 500 | 0.638 | 0.651 | 0.731 | 0.812 | 0.841 | 0.683 | 0.566 | 0.464 |
| 450 | 0.820 | 0.827 | 0.922 | 1.041 | 1.114 | 0.869 | 0.760 | 0.620 |
| 400 | 1.069 | 1.100 | 1.165 | 1.343 | 1.453 | 1.104 | 0.998 | 0.810 |
| 350 | 1.306 | 1.429 | 1.474 | 1.702 | | 1.390 | 1.215 | 1.036 |
| 300 | 1.795 | 1.767 | | 1.972 | | | 1.345 | 1.289 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 334.2 | 350.3 | 360.2 | 356.7 | 431.8 | 391.4 | 328.0 | 389.0 |
| 900 | 324.4 | 360.1 | 352.9 | 348.6 | 387.0 | 374.6 | 320.4 | 346.1 |
| 850 | 313.8 | 366.6 | 338.9 | 336.3 | 351.7 | 350.8 | 319.2 | 317.7 |
| 800 | 303.0 | 345.1 | 320.2 | 319.4 | 326.9 | 324.7 | 313.4 | 292.9 |
| 750 | 289.6 | 323.5 | 301.5 | 300.4 | 302.0 | 304.2 | 292.9 | 272.8 |
| 700 | 274.0 | 296.5 | 283.9 | 281.8 | 281.5 | 287.2 | 272.4 | 266.2 |
| 650 | 258.5 | 260.5 | 268.0 | 263.1 | 268.9 | 270.3 | 252.8 | 259.6 |
| 600 | 243.1 | 224.9 | 252.1 | 244.4 | 256.4 | 253.9 | 234.2 | 253.0 |
| 550 | 228.1 | 216.5 | 236.5 | 229.8 | 243.8 | 238.0 | 215.5 | 246.4 |
| 500 | 213.1 | 208.1 | 229.1 | 218.3 | 226.9 | 222.1 | 199.0 | 233.0 |
| 450 | 199.8 | 201.8 | 221.7 | 206.7 | 204.3 | 217.7 | 217.6 | 212.1 |
| 400 | 198.1 | 206.8 | 231.5 | 230.4 | 255.2 | 219.7 | 236.2 | 199.2 |
| 350 | 196.5 | 219.0 | 268.9 | 281.7 | | 291.1 | 363.3 | 221.9 |
| 300 | 277.5 | 257.1 | | 515.2 | | | 816.0 | 252.6 |
| LONG | -130.83 | -126.44 | -122.61 | -119.84 | -116.71 | -113.59 | -111.39 | -109.20 |
| LAT | 78.67 | 78.14 | 77.54 | 76.91 | 76.20 | 75.50 | 74.69 | 73.88 |
| QUAL | 22 | 33 | 22 | 21 | 33 | 21 | 31 | 32 |

PASS 4043 AT RESLUT, 63 722

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 123454 | 123512 | 123530 | 123546 | 123604 | 123622 | 123640 | 123658 |
| 1000 | 0.111 | 0.109 | 0.079 | 0.104 | 0.087 | 0.087 | 0.074 | 0.074 |
| 950 | 0.128 | 0.126 | 0.093 | 0.116 | 0.097 | 0.099 | 0.086 | 0.088 |
| 900 | 0.147 | 0.146 | 0.110 | 0.132 | 0.112 | 0.115 | 0.100 | 0.105 |
| 850 | 0.169 | 0.170 | 0.129 | 0.153 | 0.134 | 0.134 | 0.116 | 0.123 |
| 800 | 0.195 | 0.200 | 0.151 | 0.179 | 0.161 | 0.159 | 0.137 | 0.143 |
| 750 | 0.226 | 0.238 | 0.178 | 0.210 | 0.187 | 0.189 | 0.161 | 0.168 |
| 700 | 0.267 | 0.288 | 0.213 | 0.247 | 0.218 | 0.225 | 0.193 | 0.198 |
| 650 | 0.316 | 0.347 | 0.253 | 0.289 | 0.263 | 0.266 | 0.233 | 0.235 |
| 600 | 0.378 | 0.425 | 0.300 | 0.358 | 0.318 | 0.323 | 0.280 | 0.293 |
| 550 | 0.482 | 0.542 | 0.364 | 0.462 | 0.383 | 0.407 | 0.338 | 0.365 |
| 500 | 0.612 | 0.686 | 0.471 | 0.590 | 0.497 | 0.511 | 0.428 | 0.451 |
| 450 | 0.764 | 0.870 | 0.600 | 0.746 | 0.642 | 0.639 | 0.537 | 0.582 |
| 400 | 1.008 | 1.100 | 0.802 | 0.931 | 0.820 | 0.808 | 0.668 | 0.740 |
| 350 | 1.251 | 1.330 | 1.070 | 1.152 | 1.068 | 1.008 | 0.880 | 0.951 |
| 300 | 1.444 | 1.505 | 1.292 | 1.387 | 1.364 | 1.252 | 1.136 | 1.259 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 351.4 | 339.6 | 299.9 | 406.6 | 397.9 | 347.5 | 342.2 | 290.5 |
| 900 | 352.6 | 327.7 | 305.9 | 371.1 | 342.5 | 327.7 | 329.8 | 306.1 |
| 850 | 348.8 | 311.5 | 306.7 | 339.3 | 322.0 | 311.0 | 317.7 | 308.3 |
| 800 | 332.1 | 292.5 | 296.3 | 309.5 | 305.6 | 300.3 | 303.2 | 307.3 |
| 750 | 314.5 | 277.1 | 286.8 | 295.4 | 298.0 | 289.2 | 288.6 | 294.2 |
| 700 | 294.9 | 264.8 | 278.9 | 281.6 | 287.6 | 276.7 | 277.3 | 281.0 |
| 650 | 275.0 | 252.4 | 271.0 | 267.8 | 271.2 | 264.2 | 267.8 | 267.4 |
| 600 | 255.1 | 240.8 | 263.1 | 253.9 | 254.8 | 253.2 | 258.3 | 252.3 |
| 550 | 235.9 | 230.5 | 249.2 | 239.8 | 238.4 | 243.8 | 248.4 | 237.2 |
| 500 | 216.6 | 220.2 | 222.0 | 225.8 | 226.1 | 234.4 | 235.8 | 222.6 |
| 450 | 215.6 | 230.4 | 194.8 | 224.5 | 214.1 | 227.8 | 223.3 | 214.0 |
| 400 | 226.4 | 251.9 | 205.1 | 231.9 | 205.5 | 229.6 | 212.4 | 205.4 |
| 350 | 317.5 | 360.6 | 225.3 | 284.2 | 229.3 | 233.1 | 229.8 | 207.7 |
| 300 | 555.5 | 589.6 | 370.3 | 461.4 | 308.7 | 267.1 | 255.2 | 227.3 |
| LONG | -107.00 | -105.22 | -103.64 | -102.24 | -100.75 | -99.58 | -98.42 | -97.25 |
| LAT | 73.07 | 72.22 | 71.35 | 70.58 | 69.70 | 68.79 | 67.89 | 66.98 |
| QUAL | 31 | 22 | 21 | 22 | 32 | 31 | 23 | 32 |

PASS 4043 AT RESLUT, 65 722

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 123716 | 123734 | 123752 | 123810 | 123828 | 123844 | 123902 | 123920 |
| 1000 | 0.086 | 0.084 | **0.129** | 0.085 | 0.104 | 0.106 | 0.128 | 0.106 |
| 950 | 0.101 | 0.098 | **0.145** | 0.098 | 0.119 | 0.120 | 0.144 | 0.120 |
| 900 | 0.117 | 0.116 | **0.163** | 0.113 | 0.136 | 0.136 | 0.161 | 0.135 |
| 850 | 0.136 | 0.136 | **0.183** | 0.131 | 0.156 | 0.155 | 0.179 | 0.154 |
| 800 | 0.157 | 0.158 | **0.208** | 0.151 | 0.180 | 0.176 | 0.201 | 0.176 |
| 750 | 0.183 | 0.184 | **0.237** | 0.175 | 0.208 | 0.200 | 0.226 | 0.202 |
| 700 | 0.215 | 0.213 | **0.272** | 0.203 | 0.241 | 0.233 | 0.256 | 0.231 |
| 650 | 0.253 | 0.249 | **0.323** | 0.234 | 0.298 | 0.277 | 0.303 | 0.264 |
| 600 | 0.313 | 0.313 | **0.385** | 0.285 | 0.372 | 0.330 | 0.360 | 0.308 |
| 550 | 0.387 | 0.393 | **0.458** | 0.349 | 0.463 | 0.395 | 0.428 | 0.380 |
| 500 | 0.476 | 0.491 | **0.560** | 0.427 | 0.575 | 0.497 | 0.538 | 0.466 |
| 450 | 0.603 | 0.613 | **0.701** | 0.542 | 0.722 | 0.619 | 0.684 | 0.581 |
| 400 | 0.763 | 0.757 | **0.869** | 0.690 | 0.896 | 0.775 | 0.859 | 0.744 |
| 350 | 0.987 | 0.960 | **1.115** | 0.871 | 1.145 | 1.008 | 1.061 | 0.942 |
| 300 | 1.280 | 1.240 | **1.415** | 1.100 | 1.413 | 1.276 | 1.294 | 1.183 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 329.0 | 306.6 | **429.9** | 349.1 | 376.3 | 413.1 | 437.8 | 423.1 |
| 900 | 335.0 | 315.3 | **420.4** | 349.1 | 366.5 | 394.2 | 454.1 | 401.4 |
| 850 | 332.9 | 321.4 | **403.8** | 345.6 | 355.0 | 382.6 | 441.1 | 383.3 |
| 800 | 326.7 | 321.9 | **381.6** | 340.1 | 338.8 | 363.1 | 416.7 | 366.8 |
| 750 | 310.1 | 307.6 | **353.8** | 326.9 | 309.3 | 340.4 | 382.7 | 352.2 |
| 700 | 291.0 | 295.3 | **326.3** | 312.2 | 279.8 | 319.7 | 348.9 | 337.9 |
| 650 | 273.0 | 278.6 | **308.3** | 297.4 | 268.1 | 300.2 | 320.5 | 323.5 |
| 600 | 260.7 | 262.0 | **290.4** | 277.5 | 257.3 | 280.8 | 292.0 | 304.0 |
| 550 | 248.4 | 245.5 | **272.5** | 256.8 | 246.4 | 261.8 | 263.5 | 275.6 |
| 500 | 236.2 | 230.7 | **255.3** | 236.1 | 236.4 | 245.8 | 249.2 | 247.3 |
| 450 | 222.0 | 226.3 | **238.7** | 227.8 | 228.9 | 229.9 | 238.7 | 228.5 |
| 400 | 207.4 | 221.8 | **222.0** | 221.8 | 221.5 | 218.1 | 233.8 | 225.4 |
| 350 | 210.2 | 219.9 | **240.3** | 222.0 | 220.5 | 220.9 | 246.1 | 222.3 |
| 300 | 231.4 | 219.7 | **278.5** | 234.0 | 920.4 | 270.7 | 285.9 | 220.9 |
| LONG | -96.33 | -95.44 | **-94.56** | -93.76 | -93.07 | -92.45 | -91.77 | -91.21 |
| LAT | 66.05 | 65.11 | **64.18** | 63.23 | 62.28 | 61.44 | 60.48 | 59.52 |
| QUAL | 22 | 22 | **31** | 21 | 31 | 22 | 33 | 33 |

PASS 4043 AT OTTAWA, 63 722

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 124027 | 124052 | 124128 | 124203 | 124239 | 124314 | 124350 | 124425 |
| 1000 | 0.116 | 0.107 | 0.093 | 0.070 | 0.099 | 0.066 | 0.069 | 0.077 |
| 950 | 0.129 | 0.120 | 0.106 | 0.079 | 0.109 | 0.076 | 0.078 | 0.086 |
| 900 | 0.145 | 0.135 | 0.122 | 0.092 | 0.120 | 0.089 | 0.088 | 0.095 |
| 850 | 0.164 | 0.154 | 0.140 | 0.107 | 0.134 | 0.104 | 0.102 | 0.108 |
| 800 | 0.186 | 0.175 | 0.160 | 0.124 | 0.153 | 0.122 | 0.120 | 0.131 |
| 750 | 0.213 | 0.200 | 0.185 | 0.144 | 0.175 | 0.143 | 0.140 | 0.153 |
| 700 | 0.244 | 0.233 | 0.218 | 0.169 | 0.204 | 0.168 | 0.165 | 0.176 |
| 650 | 0.284 | 0.274 | 0.257 | 0.204 | 0.238 | 0.200 | 0.197 | 0.199 |
| 600 | 0.333 | 0.326 | 0.310 | 0.246 | 0.285 | 0.242 | 0.236 | 0.243 |
| 550 | 0.395 | 0.396 | 0.383 | 0.297 | 0.344 | 0.294 | 0.285 | 0.305 |
| 500 | 0.475 | 0.486 | 0.478 | 0.367 | 0.431 | 0.372 | 0.353 | 0.392 |
| 450 | 0.580 | 0.615 | 0.600 | 0.470 | 0.547 | 0.479 | 0.449 | 0.520 |
| 400 | 0.710 | 0.777 | 0.757 | 0.625 | 0.716 | 0.625 | 0.583 | 0.696 |
| 350 | 0.884 | 0.996 | 0.956 | 0.827 | 0.946 | 0.831 | 0.767 | 0.920 |
| 300 | 1.067 | 1.265 | 1.249 | 1.087 | 1.267 | 1.101 | 1.011 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 434.3 | 421.6 | 365.3 | 358.3 | 523.1 | 339.1 | 387.9 | 469.5 |
| 900 | 414.5 | 405.2 | 364.7 | 332.9 | 475.0 | 320.5 | 363.1 | 417.0 |
| 850 | 395.4 | 391.4 | 363.9 | 323.7 | 418.3 | 322.1 | 335.1 | 362.4 |
| 800 | 383.4 | 376.2 | 340.6 | 319.7 | 381.2 | 320.2 | 317.7 | 305.5 |
| 750 | 365.4 | 345.2 | 322.4 | 315.8 | 348.6 | 307.9 | 304.9 | 304.7 |
| 700 | 344.6 | 323.2 | 308.0 | 303.3 | 324.9 | 293.0 | 295.7 | 304.0 |
| 650 | 326.6 | 305.8 | 293.5 | 281.3 | 301.0 | 277.8 | 286.5 | 303.2 |
| 600 | 307.1 | 269.6 | 262.3 | 262.9 | 274.2 | 259.1 | 269.8 | 265.0 |
| 550 | 280.3 | 245.5 | 230.0 | 249.3 | 247.4 | 240.3 | 250.5 | 215.5 |
| 500 | 263.3 | 228.8 | 223.6 | 221.1 | 222.1 | 211.7 | 222.2 | 189.8 |
| 450 | 253.1 | 221.2 | 217.9 | 193.0 | 200.8 | 194.8 | 204.3 | 177.9 |
| 400 | 246.6 | 213.9 | 213.2 | 184.5 | 188.7 | 186.8 | 194.0 | 179.4 |
| 350 | 250.6 | 217.2 | 207.4 | 180.4 | 185.2 | 180.1 | 186.2 | 195.9 |
| 300 | 262.9 | 234.3 | 200.3 | 181.1 | 193.2 | 181.5 | 192.1 | |
| LONG | -89.29 | -88.65 | -87.86 | -87.14 | -86.50 | -85.92 | -85.37 | -84.89 |
| LAT | 55.92 | 54.57 | 52.61 | 50.71 | 48.74 | 46.82 | 44.83 | 42.90 |
| QUAL | 33 | 33 | 31 | 31 | 32 | 23 | 22 | 23 |

PASS 4043 AT OTTAWA, 63 722

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 124501 | 124536 | 124614 | 124647 | 124723 | 124758 | 124834 | 124909 |
| 1000 | 0.073 | 0.073 | 0.093 | 0.107 | 0.097 | 0.106 | 0.097 | 0.098 |
| 950 | 0.083 | 0.084 | 0.103 | 0.118 | 0.107 | 0.118 | 0.111 | 0.111 |
| 900 | 0.095 | 0.098 | 0.119 | 0.133 | 0.119 | 0.133 | 0.122 | 0.124 |
| 850 | 0.110 | 0.116 | 0.139 | 0.152 | 0.132 | 0.150 | 0.134 | 0.137 |
| 800 | 0.127 | 0.136 | 0.161 | 0.175 | 0.155 | 0.174 | 0.148 | 0.162 |
| 750 | 0.150 | 0.160 | 0.187 | 0.205 | 0.184 | 0.201 | 0.177 | 0.192 |
| 700 | 0.177 | 0.190 | 0.222 | 0.241 | 0.216 | 0.235 | 0.218 | 0.225 |
| 650 | 0.215 | 0.232 | 0.268 | 0.291 | 0.257 | 0.279 | 0.259 | 0.268 |
| 600 | 0.265 | 0.283 | 0.326 | 0.356 | 0.313 | 0.335 | 0.304 | 0.332 |
| 550 | 0.331 | 0.357 | 0.411 | 0.448 | 0.394 | 0.415 | 0.390 | 0.424 |
| 500 | 0.425 | 0.458 | 0.532 | 0.583 | 0.508 | 0.526 | 0.515 | 0.557 |
| 450 | 0.565 | 0.603 | 0.700 | 0.767 | 0.676 | 0.682 | 0.686 | 0.743 |
| 400 | 0.763 | 0.808 | 0.961 | 1.027 | 0.907 | 0.900 | 0.936 | 1.003 |
| 350 | 1.067 | 1.087 | 1.279 | 1.385 | 1.236 | 1.194 | 1.271 | 1.380 |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 360.6 | 334.4 | 396.5 | 446.9 | 481.3 | 445.6 | | 455.2 |
| 900 | 353.6 | 321.5 | 354.4 | 401.5 | 436.3 | 412.3 | 513.6 | 422.6 |
| 850 | 339.4 | 314.6 | 332.4 | 366.9 | 391.8 | 380.2 | 455.9 | 390.1 |
| 800 | 320.5 | 307.2 | 326.0 | 338.1 | 344.7 | 351.0 | 398.2 | 325.7 |
| 750 | 301.4 | 293.2 | 308.9 | 313.2 | 305.9 | 325.8 | 329.9 | 298.5 |
| 700 | 282.4 | 264.1 | 275.8 | 288.6 | 291.5 | 302.7 | 269.8 | 297.4 |
| 650 | 259.1 | 251.1 | 258.2 | 261.0 | 270.6 | 282.0 | 259.7 | 258.7 |
| 600 | 235.8 | 238.0 | 239.0 | 233.7 | 241.4 | 259.6 | 249.7 | 221.9 |
| 550 | 213.4 | 213.9 | 210.4 | 207.1 | 210.8 | 229.2 | 210.7 | 195.9 |
| 500 | 188.1 | 193.0 | 188.9 | 191.9 | 188.2 | 206.7 | 178.3 | 178.7 |
| 450 | 172.3 | 180.0 | 172.2 | 180.0 | 177.8 | 192.1 | 170.9 | 173.4 |
| 400 | 162.6 | 173.2 | 182.0 | 170.4 | 168.6 | 182.5 | 165.4 | 164.2 |
| 350 | 138.9 | 186.4 | 218.1 | 196.4 | 175.3 | 174.6 | 171.9 | 142.7 |
| 300 | | | | | | | | |
| LONG | -84.42 | -84.02 | -83.61 | -83.27 | -82.93 | -82.61 | -82.32 | -82.04 |
| LAT | 40.91 | 38.97 | 36.86 | 35.02 | 33.02 | 31.07 | 29.06 | 27.10 |
| QUAL | 23 | 22 | 12 | 13 | 23 | 23 | 33 | 33 |

PASS 4056 AT RESLUT, 63 723

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 112208 | 112224 | 112242 | 112318 | 112336 | 112354 | 112412 | 112430 |
| 1000 | 0.114 | 0.127 | 0.146 | 0.106 | 0.085 | 0.093 | 0.099 | 0.092 |
| 950 | 0.131 | 0.147 | 0.168 | 0.121 | 0.098 | 0.108 | 0.116 | 0.108 |
| 900 | 0.151 | 0.167 | 0.192 | 0.139 | 0.113 | 0.126 | 0.135 | 0.125 |
| 850 | 0.175 | 0.190 | 0.220 | 0.160 | 0.132 | 0.147 | 0.156 | 0.145 |
| 800 | 0.205 | 0.218 | 0.252 | 0.185 | 0.153 | 0.171 | 0.182 | 0.168 |
| 750 | 0.241 | 0.254 | 0.292 | 0.216 | 0.180 | 0.200 | 0.214 | 0.198 |
| 700 | 0.285 | 0.297 | 0.341 | 0.256 | 0.214 | 0.234 | 0.253 | 0.234 |
| 650 | 0.337 | 0.359 | 0.400 | 0.310 | 0.254 | 0.275 | 0.310 | 0.278 |
| 600 | 0.421 | 0.442 | 0.496 | 0.374 | 0.300 | 0.339 | 0.379 | 0.349 |
| 550 | 0.531 | 0.540 | 0.626 | 0.450 | 0.389 | 0.442 | 0.467 | 0.436 |
| 500 | 0.674 | 0.690 | 0.786 | 0.599 | 0.502 | 0.569 | 0.612 | 0.540 |
| 450 | 0.898 | 0.876 | 1.009 | 0.806 | 0.648 | 0.736 | 0.793 | 0.702 |
| 400 | 1.179 | 1.103 | 1.282 | 1.048 | 0.852 | 0.944 | 1.031 | 0.929 |
| 350 | 1.520 | 1.428 | 1.573 | 1.319 | 1.099 | 1.229 | 1.332 | 1.206 |
| 300 | 1.867 | 1.836 | 1.802 | | 1.334 | 1.642 | 1.665 | 1.542 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 353.5 | 363.0 | 365.4 | 374.7 | 340.7 | 322.0 | 340.6 | 320.4 |
| 900 | 340.1 | 381.8 | 366.2 | 358.1 | 336.1 | 326.3 | 327.8 | 331.6 |
| 850 | 327.4 | 361.9 | 358.9 | 344.9 | 324.0 | 328.6 | 325.7 | 327.7 |
| 800 | 315.6 | 340.3 | 344.5 | 323.8 | 308.0 | 316.8 | 312.8 | 314.6 |
| 750 | 300.7 | 317.6 | 324.4 | 302.4 | 294.2 | 301.0 | 293.9 | 296.8 |
| 700 | 279.9 | 294.9 | 299.0 | 283.2 | 281.1 | 284.1 | 275.2 | 278.7 |
| 650 | 259.1 | 272.9 | 273.5 | 266.2 | 268.1 | 267.1 | 257.5 | 261.0 |
| 600 | 239.3 | 251.3 | 254.2 | 249.1 | 255.1 | 248.8 | 239.9 | 246.9 |
| 550 | 219.6 | 229.6 | 236.4 | 232.0 | 233.0 | 229.2 | 223.1 | 232.7 |
| 500 | 202.6 | 223.4 | 218.6 | 214.7 | 210.5 | 209.6 | 211.3 | 218.5 |
| 450 | 195.8 | 217.7 | 226.0 | 197.4 | 197.4 | 199.8 | 199.6 | 208.2 |
| 400 | 198.1 | 211.9 | 234.9 | 241.3 | 202.0 | 195.1 | 203.5 | 200.2 |
| 350 | 226.2 | 205.1 | 316.3 | 316.1 | 244.3 | 186.2 | 213.9 | 198.8 |
| 300 | 273.8 | 310.0 | 490.0 | | 549.2 | 574.9 | 340.2 | 364.6 |
| LONG | -156.37 | -151.02 | -145.00 | -133.50 | -128.03 | -122.55 | -117.95 | -113.79 |
| LAT | 80.31 | 80.34 | 80.37 | 80.09 | 79.79 | 79.48 | 79.00 | 78.43 |
| QUAL | 33 | 22 | 32 | 31 | 23 | 22 | 33 | 22 |

PASS 4056 AT RESLUT, 63 723

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 112448 | 112504 | 112522 | 112540 | 112558 | 112616 | 112634 | 112652 |
| 1000 | 0.135 | 0.123 | 0.147 | 0.135 | 0.108 | 0.107 | 0.100 | 0.127 |
| 950 | 0.157 | 0.140 | 0.169 | 0.152 | 0.122 | 0.124 | 0.116 | 0.145 |
| 900 | 0.182 | 0.161 | 0.195 | 0.171 | 0.139 | 0.144 | 0.134 | 0.164 |
| 850 | 0.210 | 0.186 | 0.224 | 0.194 | 0.161 | 0.166 | 0.155 | 0.188 |
| 800 | 0.238 | 0.215 | 0.259 | 0.227 | 0.188 | 0.189 | 0.177 | 0.216 |
| 750 | 0.272 | 0.250 | 0.298 | 0.269 | 0.220 | 0.219 | 0.206 | 0.250 |
| 700 | 0.312 | 0.290 | 0.342 | 0.321 | 0.258 | 0.255 | 0.242 | 0.293 |
| 650 | 0.357 | 0.354 | 0.425 | 0.385 | 0.301 | 0.297 | 0.283 | 0.350 |
| 600 | 0.465 | 0.439 | 0.533 | 0.461 | 0.368 | 0.345 | 0.354 | 0.419 |
| 550 | 0.606 | 0.541 | 0.668 | 0.563 | 0.488 | 0.439 | 0.456 | 0.500 |
| 500 | 0.788 | 0.685 | 0.869 | 0.739 | 0.641 | 0.596 | 0.581 | 0.664 |
| 450 | 1.013 | 0.876 | 1.118 | 0.958 | 0.863 | 0.786 | 0.725 | 0.872 |
| 400 | 1.287 | 1.103 | 1.454 | 1.225 | 1.125 | 1.001 | 0.891 | 1.109 |
| 350 | 1.610 | 1.416 | 1.863 | 1.539 | 1.372 | 1.250 | 1.076 | 1.340 |
| 300 | 1.749 | | | 1.871 | 1.560 | 1.523 | 1.281 | 1.590 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | 365.8 | 358.6 | 432.7 | 388.4 | | | 389.6 |
| 900 | 351.9 | 355.6 | 352.0 | 394.4 | 362.3 | 352.5 | 349.6 | 378.8 |
| 850 | 369.1 | 344.4 | 343.0 | 356.0 | 340.1 | 360.1 | 347.6 | 362.6 |
| 800 | 367.6 | 328.4 | 326.9 | 327.3 | 321.4 | 338.2 | 332.0 | 342.4 |
| 750 | 341.0 | 307.5 | 310.8 | 298.8 | 303.7 | 321.2 | 312.2 | 321.2 |
| 700 | 314.4 | 286.7 | 294.7 | 278.9 | 286.5 | 304.7 | 292.4 | 300.2 |
| 650 | 287.7 | 268.7 | 267.5 | 265.2 | 269.3 | 288.3 | 272.6 | 279.5 |
| 600 | 249.2 | 251.1 | 239.0 | 251.5 | 245.8 | 271.9 | 254.8 | 258.9 |
| 550 | 210.8 | 233.6 | 212.8 | 236.5 | 211.6 | 245.1 | 238.0 | 238.9 |
| 500 | 200.1 | 224.3 | 205.8 | 217.9 | 181.7 | 209.7 | 222.0 | 235.6 |
| 450 | 206.1 | 219.4 | 198.7 | 202.2 | 197.6 | 196.2 | 240.1 | 232.3 |
| 400 | 236.2 | 214.5 | 218.3 | 215.6 | 227.6 | 214.9 | 258.2 | 242.3 |
| 350 | 390.3 | 186.9 | 251.6 | 244.6 | 328.2 | 270.4 | 259.5 | 276.4 |
| 300 | 1436.5 | | | 344.2 | 619.6 | 403.5 | 243.4 | 442.7 |
| LONG | -109.63 | -106.20 | -103.25 | -100.31 | -97.37 | -95.19 | -93.12 | -91.04 |
| LAT | 77.87 | 77.33 | 76.60 | 75.88 | 75.15 | 74.34 | 73.52 | 72.70 |
| QUAL | 32 | 22 | 22 | 23 | 31 | 33 | 22 | 33 |

PASS 4056 AT RESLUT, 63 723

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 112710 | 112726 | 112744 | 112802 | 112820 | 112838 | 112856 | 112914 |
| 1000 | 0.114 | 0.130 | 0.110 | 0.118 | 0.116 | 0.113 | 0.120 | 0.115 |
| 950 | 0.130 | 0.146 | 0.126 | 0.130 | 0.133 | 0.126 | 0.137 | 0.129 |
| 900 | 0.151 | 0.166 | 0.144 | 0.145 | 0.153 | 0.142 | 0.156 | 0.145 |
| 850 | 0.175 | 0.192 | 0.162 | 0.165 | 0.174 | 0.162 | 0.176 | 0.164 |
| 800 | 0.203 | 0.222 | 0.185 | 0.188 | 0.197 | 0.186 | 0.201 | 0.187 |
| 750 | 0.236 | 0.258 | 0.212 | 0.214 | 0.226 | 0.214 | 0.232 | 0.217 |
| 700 | 0.273 | 0.300 | 0.245 | 0.242 | 0.261 | 0.248 | 0.268 | 0.252 |
| 650 | 0.316 | 0.347 | 0.308 | 0.292 | 0.301 | 0.294 | 0.310 | 0.296 |
| 600 | 0.403 | 0.424 | 0.389 | 0.363 | 0.347 | 0.359 | 0.378 | 0.359 |
| 550 | 0.524 | 0.540 | 0.488 | 0.450 | 0.442 | 0.437 | 0.474 | 0.437 |
| 500 | 0.673 | 0.683 | 0.612 | 0.557 | 0.566 | 0.533 | 0.590 | 0.527 |
| 450 | 0.848 | 0.865 | 0.759 | 0.686 | 0.714 | 0.665 | 0.732 | 0.660 |
| 400 | 1.049 | 1.084 | 0.929 | 0.836 | 0.886 | 0.822 | 0.901 | 0.820 |
| 350 | 1.305 | 1.350 | 1.150 | 1.039 | 1.083 | 1.008 | 1.099 | 1.036 |
| 300 | 1.542 | | 1.415 | 1.304 | 1.355 | 1.215 | 1.288 | 1.274 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 350.6 | 393.4 | 385.9 | 490.3 | 373.7 | 433.7 | 381.6 | 426.4 |
| 900 | 344.6 | 368.8 | 391.4 | 427.7 | 381.4 | 399.8 | 394.3 | 405.9 |
| 850 | 336.1 | 350.9 | 383.4 | 386.0 | 381.3 | 376.7 | 374.7 | 380.9 |
| 800 | 324.5 | 336.3 | 355.0 | 363.9 | 361.6 | 353.8 | 352.6 | 356.0 |
| 750 | 308.1 | 319.5 | 321.6 | 343.3 | 343.7 | 331.3 | 335.1 | 334.4 |
| 700 | 291.7 | 302.2 | 290.4 | 322.6 | 325.8 | 308.8 | 317.5 | 312.7 |
| 650 | 275.4 | 284.9 | 271.9 | 299.3 | 308.0 | 291.1 | 300.0 | 293.1 |
| 600 | 252.6 | 266.0 | 253.4 | 275.2 | 290.1 | 277.1 | 281.7 | 279.3 |
| 550 | 228.2 | 246.0 | 234.9 | 251.0 | 269.1 | 263.2 | 262.9 | 265.6 |
| 500 | 213.2 | 226.0 | 235.2 | 241.8 | 247.7 | 250.9 | 244.2 | 251.9 |
| 450 | 223.5 | 224.3 | 239.7 | 241.3 | 228.6 | 249.8 | 243.9 | 239.5 |
| 400 | 235.1 | 229.4 | 244.1 | 240.9 | 233.3 | 248.6 | 251.7 | 227.2 |
| 350 | 276.1 | 395.9 | 244.9 | 259.9 | 238.0 | 268.3 | 292.9 | 310.7 |
| 300 | 366.6 | | 497.7 | 288.9 | 351.7 | 311.3 | 817.7 | 568.5 |
| LONG | -89.29 | -87.96 | -86.46 | -85.01 | -83.89 | -82.77 | -81.66 | -80.75 |
| LAT | 71.85 | 71.07 | 70.20 | 69.32 | 68.40 | 67.49 | 66.57 | 65.64 |
| QUAL | 22 | 21 | 31 | 33 | 31 | 22 | 31 | 31 |

PASS 4056 AT RESLUT, 63 723

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 112932 | 112950 | 113006 | 113024 | 113042 | 113100 | 113118 |
| 1000 | 0.134 | 0.146 | 0.142 | 0.123 | 0.135 | 0.134 | 0.129 |
| 950 | 0.151 | 0.163 | 0.157 | 0.134 | 0.147 | 0.151 | 0.144 |
| 900 | 0.169 | 0.182 | 0.175 | 0.149 | 0.163 | 0.169 | 0.161 |
| 850 | 0.189 | 0.203 | 0.197 | 0.168 | 0.182 | 0.189 | 0.180 |
| 800 | 0.212 | 0.229 | 0.223 | 0.194 | 0.204 | 0.212 | 0.202 |
| 750 | 0.241 | 0.260 | 0.252 | 0.224 | 0.229 | 0.242 | 0.229 |
| 700 | 0.277 | 0.298 | 0.286 | 0.257 | 0.256 | 0.279 | 0.260 |
| 650 | 0.320 | 0.342 | 0.324 | 0.294 | 0.297 | 0.326 | 0.296 |
| 600 | 0.385 | 0.403 | 0.384 | 0.353 | 0.356 | 0.381 | 0.337 |
| 550 | 0.464 | 0.497 | 0.458 | 0.438 | 0.426 | 0.460 | 0.409 |
| 500 | 0.557 | 0.614 | 0.554 | 0.542 | 0.510 | 0.580 | 0.516 |
| 450 | 0.700 | 0.779 | 0.691 | 0.692 | 0.636 | 0.729 | 0.650 |
| 400 | 0.896 | 0.995 | 0.858 | 0.898 | 0.801 | 0.946 | 0.852 |
| 350 | 1.139 | 1.276 | 1.144 | 1.151 | 0.997 | 1.245 | 1.111 |
| 300 | 1.493 | 1.654 | | 1.412 | 1.246 | 1.672 | 1.482 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 432.5 | 459.1 | 461.3 | 499.1 | 534.5 | 436.7 | 471.4 |
| 900 | 442.8 | 446.3 | 440.3 | 441.1 | 475.2 | 445.7 | 446.0 |
| 850 | 421.6 | 428.6 | 416.6 | 401.7 | 444.9 | 424.5 | 427.2 |
| 800 | 399.3 | 399.8 | 394.8 | 374.7 | 418.0 | 401.7 | 405.6 |
| 750 | 371.7 | 372.8 | 380.1 | 350.3 | 393.0 | 369.0 | 384.8 |
| 700 | 344.1 | 347.6 | 365.5 | 328.9 | 368.0 | 337.2 | 364.3 |
| 650 | 317.2 | 322.4 | 350.1 | 307.5 | 342.8 | 310.8 | 343.8 |
| 600 | 295.8 | 295.3 | 315.9 | 283.0 | 317.4 | 284.4 | 323.3 |
| 550 | 274.3 | 264.7 | 281.6 | 257.0 | 292.1 | 260.1 | 287.9 |
| 500 | 252.9 | 234.1 | 252.4 | 231.1 | 266.8 | 238.3 | 244.7 |
| 450 | 234.6 | 218.8 | 231.0 | 217.5 | 252.6 | 216.5 | 206.1 |
| 400 | 217.9 | 209.9 | 209.7 | 212.1 | 242.7 | 196.9 | 194.8 |
| 350 | 203.2 | 202.9 | 147.4 | 232.9 | 232.9 | 178.7 | 186.5 |
| 300 | 205.7 | 212.7 | | 592.8 | 236.3 | 214.3 | 193.4 |
| LONG | -79.90 | -79.04 | -78.35 | -77.67 | -77.00 | -76.33 | -75.79 |
| LAT | 64.71 | 63.77 | 62.93 | 61.98 | 61.02 | 60.07 | 59.10 |
| QUAL | 21 | 31 | 33 | 31 | 33 | 33 | 22 |

PASS 4056 AT OTTAWA, 63 723

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 113531 | 113606 | 113642 | 113717 | 113753 | 113828 | 113857 | 113939 |
| 1000 | 0.109 | 0.104 | 0.060 | 0.079 | 0.103 | 0.088 | 0.105 | 0.089 |
| 950 | 0.115 | 0.115 | 0.071 | 0.091 | 0.118 | 0.103 | 0.123 | 0.126 |
| 900 | 0.126 | 0.127 | 0.083 | 0.107 | 0.137 | 0.121 | 0.144 | 0.148 |
| 850 | 0.147 | 0.142 | 0.097 | 0.126 | 0.160 | 0.144 | 0.168 | 0.174 |
| 800 | 0.165 | 0.162 | 0.115 | 0.150 | 0.188 | 0.173 | 0.198 | 0.204 |
| 750 | 0.184 | 0.187 | 0.138 | 0.179 | 0.220 | 0.207 | 0.234 | 0.242 |
| 700 | 0.214 | 0.219 | 0.165 | 0.216 | 0.261 | 0.248 | 0.282 | 0.289 |
| 650 | 0.251 | 0.257 | 0.199 | 0.261 | 0.311 | 0.299 | 0.344 | 0.350 |
| 600 | 0.296 | 0.313 | 0.242 | 0.320 | 0.383 | 0.367 | 0.425 | 0.431 |
| 550 | 0.355 | 0.385 | 0.299 | 0.399 | 0.476 | 0.466 | 0.534 | 0.543 |
| 500 | 0.439 | 0.489 | 0.380 | 0.514 | 0.613 | 0.608 | 0.693 | 0.702 |
| 450 | 0.563 | 0.645 | 0.500 | 0.700 | 0.817 | 0.823 | 0.909 | 0.961 |
| 400 | 0.743 | 0.869 | 0.684 | 0.973 | 1.127 | 1.175 | 1.284 | 1.327 |
| 350 | 1.000 | 1.180 | 0.956 | 1.366 | | 1.702 | 1.829 | 1.857 |
| 300 | 1.330 | | | | | 2.346 | 2.561 | 2.535 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 814.2 | 514.4 | 303.7 | 329.9 | 338.9 | 313.9 | 322.0 | |
| 900 | 547.6 | 462.0 | 307.3 | 307.8 | 327.7 | 296.1 | 321.1 | 293.2 |
| 850 | 400.6 | 405.2 | 303.9 | 292.6 | 320.4 | 284.2 | 310.9 | 301.9 |
| 800 | 396.6 | 366.6 | 288.8 | 282.9 | 312.8 | 279.1 | 297.6 | 303.7 |
| 750 | 385.6 | 334.1 | 277.2 | 276.9 | 305.0 | 279.4 | 283.2 | 287.7 |
| 700 | 341.2 | 311.3 | 271.4 | 265.4 | 287.4 | 269.7 | 266.1 | 271.3 |
| 650 | 308.4 | 287.7 | 261.2 | 252.4 | 260.2 | 253.3 | 246.1 | 254.2 |
| 600 | 283.6 | 257.8 | 249.4 | 238.4 | 238.7 | 225.3 | 223.6 | 229.1 |
| 550 | 259.0 | 227.8 | 224.8 | 212.4 | 216.4 | 202.3 | 202.4 | 202.6 |
| 500 | 224.7 | 197.9 | 197.0 | 180.6 | 191.2 | 178.2 | 187.7 | 177.6 |
| 450 | 193.3 | 179.5 | 171.2 | 164.9 | 169.9 | 155.4 | 171.9 | 166.1 |
| 400 | 176.9 | 169.0 | 160.9 | 155.1 | 155.9 | 139.5 | 149.4 | 156.4 |
| 350 | 172.7 | 165.4 | 146.5 | 150.8 | | 149.7 | 147.2 | 156.4 |
| 300 | 188.2 | | | | | 179.7 | 163.5 | 181.4 |
| LONG | -70.34 | -69.83 | -69.38 | -68.96 | -68.55 | -68.19 | -67.91 | -67.53 |
| LAT | 45.34 | 43.41 | 41.42 | 39.48 | 37.48 | 35.53 | 33.92 | 31.58 |
| QUAL | 23 | 13 | 13 | 13 | 23 | 12 | 12 | 12 |

PASS 4056 AT OTTAWA, 63 723

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 114015 | 114050 | 114126 | 114201 | 114237 |
| 1000 | 0.108 | 0.083 | 0.100 | 0.104 | 0.106 |
| 950 | 0.123 | 0.097 | 0.117 | 0.122 | 0.119 |
| 900 | 0.142 | 0.114 | 0.137 | 0.142 | 0.136 |
| 850 | 0.165 | 0.135 | 0.160 | 0.166 | 0.157 |
| 800 | 0.193 | 0.160 | 0.187 | 0.195 | 0.182 |
| 750 | 0.226 | 0.191 | 0.221 | 0.230 | 0.213 |
| 700 | 0.272 | 0.231 | 0.264 | 0.272 | 0.254 |
| 650 | 0.333 | 0.282 | 0.319 | 0.326 | 0.305 |
| 600 | 0.406 | 0.348 | 0.390 | 0.393 | 0.368 |
| 550 | 0.504 | 0.441 | 0.486 | 0.483 | 0.459 |
| 500 | 0.656 | 0.582 | 0.637 | 0.614 | 0.592 |
| 450 | 0.875 | 0.787 | 0.860 | 0.823 | 0.792 |
| 400 | 1.266 | 1.099 | 1.214 | 1.176 | 1.102 |
| 350 | 1.836 | 1.618 | 1.735 | 1.709 | 1.557 |
| 300 | 2.598 | | 2.482 | 2.460 | 2.191 |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | 366.2 | 317.4 | 315.8 | 317.7 | 403.2 |
| 900 | 342.8 | 304.2 | 320.0 | 317.0 | 368.5 |
| 850 | 323.1 | 296.9 | 318.4 | 313.4 | 345.0 |
| 800 | 308.0 | 283.6 | 306.2 | 307.7 | 322.5 |
| 750 | 293.3 | 270.7 | 289.4 | 298.8 | 302.5 |
| 700 | 273.2 | 259.2 | 270.0 | 288.8 | 286.3 |
| 650 | 253.0 | 243.6 | 256.5 | 273.6 | 267.9 |
| 600 | 240.8 | 224.8 | 238.4 | 255.5 | 248.1 |
| 550 | 208.2 | 198.0 | 207.0 | 226.2 | 215.9 |
| 500 | 182.8 | 177.1 | 181.5 | 193.7 | 187.5 |
| 450 | 160.4 | 158.9 | 159.8 | 160.0 | 164.1 |
| 400 | 139.9 | 143.7 | 147.8 | 138.2 | 149.5 |
| 350 | 139.3 | 127.2 | 139.1 | 136.6 | 146.3 |
| 300 | 155.1 | | 153.9 | 154.6 | 160.4 |
| LONG | -67.22 | -66.94 | -66.67 | -66.41 | -66.17 |
| LAT | 29.57 | 27.61 | 25.59 | 23.62 | 21.60 |
| QUAL | 22 | 23 | 22 | 23 | 22 |

PASS 4056 AT QUITOE, 63 723

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 114523 | 114559 | 114634 | 114710 |
| 1000 | 0.099 | 0.106 | 0.084 | 0.089 |
| 950 | 0.113 | 0.121 | 0.099 | 0.109 |
| 900 | 0.129 | 0.137 | 0.113 | 0.125 |
| 850 | 0.149 | 0.155 | 0.127 | 0.142 |
| 800 | 0.172 | 0.176 | 0.143 | 0.160 |
| 750 | 0.202 | 0.200 | 0.161 | 0.181 |
| 700 | 0.236 | 0.229 | 0.181 | 0.206 |
| 650 | 0.278 | 0.264 | 0.208 | 0.239 |
| 600 | 0.327 | 0.311 | 0.250 | 0.281 |
| 550 | 0.385 | 0.381 | 0.300 | 0.340 |
| 500 | 0.472 | 0.468 | 0.374 | 0.434 |
| 450 | 0.610 | 0.617 | 0.469 | 0.576 |
| 400 | 0.892 | 0.872 | 0.679 | 0.848 |
| 350 | 1.312 | 1.370 | 1.085 | 1.404 |
| 300 | 2.076 | 2.161 | 1.896 | 2.351 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 900 | 350.3 | 389.9 | 397.9 | 372.9 |
| 850 | 341.0 | 392.9 | 409.9 | 396.2 |
| 800 | 332.4 | 387.8 | 397.9 | 398.8 |
| 750 | 325.2 | 376.7 | 381.4 | 380.4 |
| 700 | 317.9 | 352.8 | 364.9 | 355.6 |
| 650 | 310.1 | 315.8 | 339.3 | 321.8 |
| 600 | 302.0 | 282.4 | 298.9 | 284.2 |
| 550 | 279.2 | 253.3 | 258.4 | 245.2 |
| 500 | 217.9 | 224.2 | 221.7 | 204.2 |
| 450 | 177.2 | 180.1 | 185.7 | 162.9 |
| 400 | 136.7 | 131.5 | 139.5 | 121.3 |
| 350 | 111.9 | 105.5 | 94.3 | 97.1 |
| 300 | 116.1 | 126.5 | 102.5 | 105.6 |
| LONG | -65.15 | -64.95 | -64.76 | -64.57 |
| LAT | 12.27 | 10.25 | 8.27 | 6.25 |
| QUAL | 33 | 33 | 33 | 33 |

PASS 4056 AT AGASTA, 63 723

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 115229 | 115323 |
| 1000 | 0.113 | 0.082 |
| 950 | 0.125 | 0.094 |
| 900 | 0.136 | 0.107 |
| 850 | 0.146 | 0.119 |
| 800 | 0.156 | 0.130 |
| 750 | 0.169 | 0.142 |
| 700 | 0.197 | 0.158 |
| 650 | 0.256 | 0.179 |
| 600 | 0.310 | 0.238 |
| 550 | 0.476 | 0.365 |
| 500 | 0.759 | 0.486 |
| 450 | 1.012 | 0.760 |
| 400 | 1.828 | 1.411 |
| 350 | 3.105 | 2.420 |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 548.8 | 380.2 |
| 900 | 646.8 | 447.3 |
| 850 | 702.5 | 503.1 |
| 800 | 693.7 | 528.6 |
| 750 | 524.4 | 489.1 |
| 700 | 232.6 | 407.3 |
| 650 | 213.2 | 319.2 |
| 600 | 201.4 | 209.2 |
| 550 | 115.8 | 132.7 |
| 500 | 118.0 | 131.2 |
| 450 | 119.1 | 110.4 |
| 400 | 86.7 | 88.9 |
| 350 | 200.7 | 87.6 |
| 300 | | |

| | | |
|---|---|---|
| LONG | -62.07 | -62.55 |
| LAT | -11.71 | -14.76 |
| QUAL | 33 | 33 |

PASS 4063 AT AGASTA, 63 724

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 5120 | 5156 | 5231 | 5307 | 5342 | 5418 | 5453 | 5529 |
| 1000 | 0.120 | 0.118 | 0.127 | 0.116 | 0.123 | 0.121 | 0.114 | 0.105 |
| 950 | 0.126 | 0.126 | 0.138 | 0.124 | 0.133 | 0.129 | 0.125 | 0.114 |
| 900 | 0.132 | 0.133 | 0.148 | 0.132 | 0.140 | 0.137 | 0.134 | 0.121 |
| 850 | 0.139 | 0.139 | 0.156 | 0.141 | 0.149 | 0.147 | 0.143 | 0.129 |
| 800 | 0.146 | 0.149 | 0.166 | 0.151 | 0.161 | 0.158 | 0.153 | 0.139 |
| 750 | 0.153 | 0.163 | 0.176 | 0.164 | 0.177 | 0.175 | 0.172 | 0.151 |
| 700 | 0.162 | 0.181 | 0.192 | 0.181 | 0.199 | 0.197 | 0.205 | 0.168 |
| 650 | 0.181 | 0.201 | 0.218 | 0.203 | 0.225 | 0.223 | 0.248 | 0.199 |
| 600 | 0.209 | 0.224 | 0.258 | 0.229 | 0.261 | 0.272 | 0.306 | 0.237 |
| 550 | 0.253 | 0.265 | 0.321 | 0.293 | 0.348 | 0.362 | 0.387 | 0.310 |
| 500 | 0.359 | 0.428 | 0.504 | 0.426 | 0.522 | 0.522 | 0.547 | 0.523 |
| 450 | 0.595 | 0.704 | 0.811 | 0.740 | 0.846 | 0.835 | 0.957 | 0.946 |
| 400 | 0.949 | 1.184 | 1.316 | 1.238 | 1.311 | 1.380 | 1.608 | 1.862 |
| 350 | 1.581 | 1.819 | 1.869 | 1.797 | 1.904 | 2.241 | 2.742 | 3.360 |
| 300 | | | | | 2.688 | 3.709 | 4.435 | 5.173 |
| | | | | | | | | |
| 950 | 1085.8 | 877.1 | 681.2 | 821.9 | 799.3 | 814.7 | | 749.0 |
| 900 | 1014.6 | 896.8 | 823.7 | 786.0 | 835.1 | 781.1 | 704.8 | 744.7 |
| 850 | 942.7 | 792.8 | 805.5 | 695.2 | 713.7 | 668.1 | 622.4 | 667.0 |
| 800 | 859.7 | 694.9 | 732.7 | 630.3 | 598.5 | 558.0 | 539.9 | 595.6 |
| 750 | 776.8 | 599.6 | 659.8 | 565.4 | 501.4 | 490.8 | 460.0 | 524.2 |
| 700 | 693.9 | 506.1 | 553.5 | 491.3 | 433.1 | 423.5 | 381.8 | 446.4 |
| 650 | 542.5 | 439.2 | 400.6 | 411.7 | 364.9 | 356.2 | 303.6 | 355.3 |
| 600 | 366.9 | 372.3 | 271.8 | 332.0 | 291.1 | 274.8 | 237.3 | 264.2 |
| 550 | 225.9 | 236.3 | 175.6 | 207.7 | 167.9 | 177.5 | 190.1 | 161.4 |
| 500 | 133.3 | 103.1 | 113.4 | 118.9 | 115.0 | 127.7 | 131.1 | 83.7 |
| 450 | 103.0 | 101.5 | 106.3 | 95.9 | 111.2 | 108.2 | 93.3 | 79.9 |
| 400 | 103.6 | 107.3 | 120.7 | 116.9 | 125.6 | 103.6 | 95.3 | 80.0 |
| 350 | 144.7 | 229.7 | 248.7 | 211.8 | 139.9 | 100.7 | 98.9 | 97.3 |
| 300 | | | | | 172.2 | 106.6 | 122.0 | 141.8 |
| LONG | -86.31 | -86.00 | -85.73 | -85.46 | -85.22 | -84.97 | -84.75 | -84.53 |
| LAT | -30.60 | -28.57 | -26.61 | -24.59 | -22.61 | -20.59 | -18.61 | -16.58 |
| QUAL | 22 | 22 | 22 | 22 | 22 | 23 | 23 | 23 |

PASS 4063 AT AGASTA, 63 724

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 5604 | 5658 | 5733 | 5826 | 5902 | 5937 |
| 1000 | 0.110 | 0.110 | 0.104 | 0.115 | 0.119 | 0.131 |
| 950 | 0.117 | 0.116 | 0.113 | 0.122 | 0.128 | 0.143 |
| 900 | 0.126 | 0.122 | 0.121 | 0.132 | 0.138 | 0.157 |
| 850 | 0.135 | 0.130 | 0.129 | 0.145 | 0.152 | 0.173 |
| 800 | 0.146 | 0.139 | 0.138 | 0.159 | 0.174 | 0.195 |
| 750 | 0.158 | 0.149 | 0.146 | 0.179 | 0.201 | 0.223 |
| 700 | 0.177 | 0.164 | 0.173 | 0.206 | 0.237 | 0.257 |
| 650 | 0.202 | 0.190 | 0.211 | 0.249 | 0.286 | 0.297 |
| 600 | 0.241 | 0.235 | 0.266 | 0.310 | 0.379 | 0.422 |
| 550 | 0.346 | 0.376 | 0.425 | 0.417 | 0.557 | 0.615 |
| 500 | 0.616 | 0.728 | 0.786 | 0.769 | 0.814 | 0.875 |
| 450 | 1.263 | 1.456 | 1.566 | 1.383 | 1.388 | 1.368 |
| 400 | 2.424 | 2.729 | 2.830 | 2.521 | 2.482 | 2.167 |
| 350 | 4.196 | 4.582 | 4.449 | | | 3.282 |
| 300 | 6.145 | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 734.8 | 969.0 | 669.6 | 746.9 | 666.3 | 556.2 |
| 900 | 701.8 | 815.3 | 738.4 | 607.7 | 553.6 | 525.5 |
| 850 | 643.6 | 743.8 | 671.0 | 519.1 | 470.5 | 443.5 |
| 800 | 585.0 | 672.3 | 603.5 | 466.5 | 413.5 | 388.0 |
| 750 | 526.5 | 600.9 | 536.1 | 399.8 | 356.5 | 348.6 |
| 700 | 445.0 | 500.3 | 412.5 | 319.1 | 297.1 | 309.3 |
| 650 | 356.5 | 349.0 | 281.2 | 260.9 | 234.7 | 270.0 |
| 600 | 237.5 | 202.6 | 185.1 | 207.8 | 178.7 | 180.5 |
| 550 | 106.7 | 91.9 | 98.6 | 141.2 | 131.7 | 131.2 |
| 500 | 77.8 | 76.0 | 80.1 | 78.2 | 116.5 | 128.6 |
| 450 | 73.9 | 72.3 | 75.7 | 76.4 | 88.8 | 113.7 |
| 400 | 82.6 | 85.3 | 93.6 | 92.3 | 101.9 | 112.6 |
| 350 | 108.6 | 129.9 | 152.3 | | | 153.1 |
| 300 | 321.0 | | | | | |
| LONG | -84.32 | -84.00 | -83.81 | -83.52 | -83.33 | -83.14 |
| LAT | -14.60 | -11.56 | -9.59 | -6.59 | -4.56 | -2.58 |
| QUAL | 22 | 23 | 23 | 23 | 23 | 23 |

PASS 4063 AT QUITOE, 63 724

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 5511 | 5547 | 5622 | 5658 | 5826 | 5902 | 5937 | 10013 |
| 1000 | 0.094 | 0.116 | 0.106 | 0.110 | 0.115 | 0.118 | 0.134 | 0.132 |
| 950 | 0.102 | 0.126 | 0.113 | 0.116 | 0.122 | 0.127 | 0.146 | 0.143 |
| 900 | 0.110 | 0.133 | 0.120 | 0.122 | 0.132 | 0.137 | 0.160 | 0.161 |
| 850 | 0.120 | 0.140 | 0.128 | 0.131 | 0.149 | 0.150 | 0.174 | 0.181 |
| 800 | 0.132 | 0.152 | 0.139 | 0.144 | 0.170 | 0.165 | 0.197 | 0.204 |
| 750 | 0.144 | 0.171 | 0.152 | 0.161 | 0.192 | 0.183 | 0.226 | 0.229 |
| 700 | 0.157 | 0.191 | 0.167 | 0.180 | 0.215 | 0.218 | 0.262 | 0.266 |
| 650 | 0.180 | 0.213 | 0.189 | 0.201 | 0.241 | 0.276 | 0.303 | 0.328 |
| 600 | 0.210 | 0.235 | 0.220 | 0.244 | 0.270 | 0.355 | 0.389 | 0.442 |
| 550 | 0.251 | 0.310 | 0.307 | 0.397 | 0.311 | 0.479 | 0.574 | 0.626 |
| 500 | 0.325 | 0.521 | 0.531 | 0.750 | 0.593 | 0.686 | 0.858 | 0.904 |
| 450 | 0.593 | 1.044 | 1.135 | 1.428 | 1.269 | 1.161 | 1.285 | 1.380 |
| 400 | 1.192 | 1.882 | 2.119 | 2.576 | 2.396 | 2.121 | 1.995 | 1.982 |
| 350 | 2.378 | 3.380 | 3.836 | 4.422 | 3.849 | 3.418 | 3.108 | 2.693 |
| 300 | 4.343 | 5.272 | 5.687 | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 700.8 | 916.6 | 797.4 | 1039.9 | 711.4 | 663.7 | 566.6 | 531.9 |
| 900 | 609.2 | 849.2 | 747.5 | 770.4 | 555.6 | 571.9 | 506.8 | 436.5 |
| 850 | 570.8 | 750.5 | 676.4 | 670.9 | 481.2 | 515.1 | 449.0 | 413.0 |
| 800 | 531.7 | 625.8 | 613.7 | 592.3 | 412.0 | 458.2 | 409.1 | 389.5 |
| 750 | 491.8 | 486.8 | 561.0 | 513.6 | 386.6 | 401.4 | 369.3 | 366.0 |
| 700 | 451.9 | 426.0 | 498.4 | 438.8 | 361.2 | 333.1 | 329.4 | 314.2 |
| 650 | 389.4 | 388.0 | 385.4 | 365.2 | 335.7 | 255.5 | 289.5 | 218.6 |
| 600 | 323.2 | 350.1 | 263.2 | 172.3 | 310.3 | 189.2 | 226.0 | 170.4 |
| 550 | 250.9 | 133.3 | 123.8 | 95.8 | 270.6 | 161.4 | 127.1 | 141.8 |
| 500 | 153.4 | 84.7 | 78.0 | 79.5 | 68.8 | 124.6 | 127.4 | 130.5 |
| 450 | 75.0 | 77.9 | 73.2 | 87.3 | 72.7 | 84.0 | 119.4 | 127.4 |
| 400 | 71.3 | 85.0 | 81.1 | 85.1 | 87.9 | 92.0 | 109.7 | 151.0 |
| 350 | 75.9 | 89.0 | 91.7 | 127.9 | 148.2 | 130.9 | 145.3 | 189.0 |
| 300 | 97.8 | 171.5 | 282.6 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -84.63 | -84.42 | -84.21 | -84.00 | -83.52 | -83.33 | -83.14 | -82.95 |
| LAT | -17.60 | -15.56 | -13.59 | -11.56 | -6.59 | -4.56 | -2.58 | -0.55 |
| QUAL | 33 | 33 | 21 | 23 | 23 | 23 | 23 | 23 |

PASS 4063 AT QUITOE, 63 724

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 10120 | 10156 | 10231 | 10307 | 10342 | 10418 | 10453 | 10511 |
| 1000 | 0.150 | 0.145 | 0.151 | 0.145 | 0.141 | 0.137 | 0.134 | 0.133 |
| 950 | 0.163 | 0.160 | 0.164 | 0.161 | 0.156 | 0.150 | 0.154 | 0.151 |
| 900 | 0.179 | 0.178 | 0.183 | 0.182 | 0.177 | 0.168 | 0.177 | 0.176 |
| 850 | 0.199 | 0.200 | 0.206 | 0.207 | 0.202 | 0.190 | 0.204 | 0.207 |
| 800 | 0.222 | 0.226 | 0.238 | 0.235 | 0.236 | 0.222 | 0.237 | 0.243 |
| 750 | 0.266 | 0.257 | 0.287 | 0.272 | 0.287 | 0.267 | 0.281 | 0.285 |
| 700 | 0.351 | 0.311 | 0.352 | 0.352 | 0.352 | 0.332 | 0.343 | 0.343 |
| 650 | 0.461 | 0.419 | 0.443 | 0.456 | 0.450 | 0.414 | 0.421 | 0.425 |
| 600 | 0.632 | 0.558 | 0.567 | 0.618 | 0.597 | 0.539 | 0.552 | 0.564 |
| 550 | 0.904 | 0.785 | 0.817 | 0.877 | 0.862 | 0.626 | 0.785 | 0.763 |
| 500 | 1.356 | 1.216 | 1.253 | 1.381 | 1.340 | 1.272 | 1.190 | 1.140 |
| 450 | 2.010 | 1.938 | 1.975 | 2.154 | 2.096 | 2.039 | 1.933 | 1.859 |
| 400 | 2.864 | 2.925 | 2.976 | 3.241 | 3.227 | 3.173 | 3.012 | 2.868 |
| 350 | | | | | | | 4.434 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 523.9 | 465.5 | 520.2 | 429.4 | 441.1 | 461.3 | 357.0 | 361.8 |
| 900 | 468.1 | 421.2 | 432.8 | 389.5 | 381.6 | 413.7 | 350.2 | 327.8 |
| 850 | 417.7 | 390.1 | 378.9 | 357.6 | 338.6 | 370.2 | 330.6 | 309.7 |
| 800 | 367.2 | 359.1 | 328.2 | 325.8 | 300.3 | 305.8 | 306.9 | 299.8 |
| 750 | 310.2 | 328.0 | 280.4 | 292.5 | 267.6 | 246.3 | 281.9 | 289.8 |
| 700 | 243.6 | 284.9 | 238.0 | 246.4 | 234.9 | 224.8 | 255.9 | 258.8 |
| 650 | 177.7 | 222.7 | 209.8 | 200.3 | 198.2 | 203.3 | 224.0 | 203.6 |
| 600 | 155.9 | 164.0 | 178.0 | 162.9 | 162.4 | 174.7 | 163.1 | 177.8 |
| 550 | 134.4 | 136.0 | 128.9 | 134.9 | 129.2 | 119.8 | 134.3 | 152.2 |
| 500 | 125.1 | 108.8 | 114.5 | 108.7 | 113.0 | 111.8 | 111.6 | 114.3 |
| 450 | 133.8 | 111.6 | 114.7 | 118.4 | 112.8 | 107.7 | 110.3 | 110.8 |
| 400 | 166.1 | 155.9 | 134.2 | 140.1 | 131.3 | 121.0 | 118.3 | 119.0 |
| 350 | | | | | | | 148.3 | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -82.60 | -82.41 | -82.22 | -82.03 | -81.83 | -81.62 | -81.42 | -81.31 |
| LAT | 3.22 | 5.25 | 7.23 | 9.26 | 11.23 | 13.26 | 15.24 | 16.25 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 33 | 33 |

PASS 4063 AT QUITOE, 63 724

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 10546 | 10622 | 10657 | 10733 | 10808 | 10844 |
| 1000 | 0.144 | 0.145 | 0.137 | 0.121 | 0.093 | 0.089 |
| 950 | 0.159 | 0.161 | 0.154 | 0.134 | 0.108 | 0.105 |
| 900 | 0.179 | 0.178 | 0.178 | 0.156 | 0.124 | 0.126 |
| 850 | 0.203 | 0.199 | 0.206 | 0.183 | 0.146 | 0.154 |
| 800 | 0.231 | 0.229 | 0.238 | 0.216 | 0.173 | 0.189 |
| 750 | 0.264 | 0.276 | 0.278 | 0.256 | 0.213 | 0.230 |
| 700 | 0.331 | 0.337 | 0.337 | 0.318 | 0.289 | 0.291 |
| 650 | 0.437 | 0.419 | 0.410 | 0.429 | 0.386 | 0.388 |
| 600 | 0.608 | 0.541 | 0.539 | 0.583 | 0.521 | 0.520 |
| 550 | 0.890 | 0.778 | 0.707 | 0.794 | 0.689 | 0.709 |
| 500 | 1.323 | 1.210 | 1.042 | 1.157 | 1.006 | 1.019 |
| 450 | 2.013 | 1.960 | 1.597 | 1.730 | 1.546 | 1.537 |
| 400 | 3.076 | 3.088 | 2.472 | 2.634 | 2.472 | 2.359 |
| 350 | 4.422 | 4.515 | 3.734 | | | |
| 300 | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | |
|---|---|---|---|---|---|---|
| 950 | 453.6 | 485.5 | 374.5 | 408.3 | 330.1 | 282.2 |
| 900 | 405.8 | 447.4 | 344.5 | 340.9 | 311.3 | 269.1 |
| 850 | 372.2 | 394.1 | 331.5 | 308.6 | 286.0 | 255.7 |
| 800 | 338.6 | 341.1 | 318.4 | 284.8 | 260.6 | 241.7 |
| 750 | 305.1 | 288.9 | 298.1 | 260.9 | 234.4 | 227.7 |
| 700 | 253.6 | 241.8 | 260.0 | 229.3 | 206.4 | 209.1 |
| 650 | 192.0 | 210.7 | 222.6 | 185.5 | 178.3 | 185.1 |
| 600 | 151.7 | 177.2 | 193.3 | 161.3 | 167.1 | 166.4 |
| 550 | 133.8 | 137.2 | 163.9 | 152.6 | 158.1 | 154.2 |
| 500 | 124.0 | 105.1 | 129.2 | 125.8 | 127.3 | 132.7 |
| 450 | 116.5 | 110.0 | 115.6 | 122.6 | 115.8 | 118.3 |
| 400 | 123.7 | 114.4 | 119.3 | 123.6 | 108.6 | 120.6 |
| 350 | 167.5 | 159.8 | 132.9 | | | |
| 300 | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| LONG | -81.10 | -80.87 | -80.64 | -80.39 | -80.14 | -79.86 |
| LAT | 18.21 | 20.24 | 22.20 | 24.22 | 26.19 | 28.21 |
| QUAL | 33 | 33 | 23 | 33 | 23 | 33 |

PASS 4064 AT OTTAWA, 63 724

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 11120 | 11155 | 11230 | 11306 |
| 1000 | 0.092 | 0.086 | 0.089 | 0.071 |
| 950 | 0.108 | 0.107 | 0.108 | 0.084 |
| 900 | 0.128 | 0.130 | 0.132 | 0.102 |
| 850 | 0.156 | 0.160 | 0.161 | 0.128 |
| 800 | 0.193 | 0.198 | 0.201 | 0.163 |
| 750 | 0.241 | 0.248 | 0.253 | 0.210 |
| 700 | 0.308 | 0.316 | 0.327 | 0.277 |
| 650 | 0.401 | 0.414 | 0.431 | 0.374 |
| 600 | 0.540 | 0.555 | 0.579 | 0.513 |
| 550 | 0.748 | 0.762 | 0.789 | 0.724 |
| 500 | 1.069 | 1.084 | 1.121 | 1.057 |
| 450 | 1.508 | 1.594 | 1.612 | 1.545 |
| 400 | 2.307 | 2.344 | 2.352 | |
| 350 | | | | |
| 300 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | |
|---|---|---|---|---|
| 950 | 292.5 | 244.4 | 249.2 | 269.7 |
| 900 | 273.9 | 244.9 | 245.7 | 243.3 |
| 850 | 252.1 | 238.6 | 239.5 | 219.6 |
| 800 | 232.5 | 227.4 | 225.6 | 201.9 |
| 750 | 216.1 | 216.5 | 204.8 | 192.8 |
| 700 | 198.9 | 196.5 | 189.3 | 172.8 |
| 650 | 177.4 | 177.7 | 175.6 | 161.5 |
| 600 | 161.3 | 163.5 | 163.8 | 152.6 |
| 550 | 152.2 | 154.1 | 153.5 | 141.7 |
| 500 | 140.9 | 140.5 | 145.4 | 136.3 |
| 450 | 130.6 | 131.0 | 134.6 | 130.4 |
| 400 | 142.5 | 146.8 | 141.1 | |
| 350 | | | | |
| 300 | | | | |

| | | | | |
|---|---|---|---|---|
| LONG | -78.43 | -78.05 | -77.63 | -77.19 |
| LAT | 36.92 | 38.87 | 40.82 | 42.82 |
| QUAL | 23 | 33 | 23 | 33 |

PASS 4004 AT RESLUT, 63 724

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 12602 | 12620 | 12638 | 12656 | 12714 | 12732 | 12750 | 12808 |
| 1000 | 0.069 | 0.090 | 0.085 | 0.086 | 0.073 | 0.070 | 0.065 | 0.075 |
| 950 | 0.080 | 0.105 | 0.098 | 0.099 | 0.084 | 0.082 | 0.076 | 0.086 |
| 900 | 0.091 | 0.123 | 0.112 | 0.115 | 0.097 | 0.096 | 0.088 | 0.100 |
| 850 | 0.106 | 0.144 | 0.129 | 0.131 | 0.111 | 0.113 | 0.101 | 0.115 |
| 800 | 0.125 | 0.168 | 0.149 | 0.150 | 0.127 | 0.132 | 0.117 | 0.133 |
| 750 | 0.147 | 0.198 | 0.171 | 0.172 | 0.145 | 0.155 | 0.135 | 0.155 |
| 700 | 0.172 | 0.236 | 0.199 | 0.197 | 0.165 | 0.182 | 0.156 | 0.179 |
| 650 | 0.200 | 0.285 | 0.231 | 0.227 | 0.190 | 0.211 | 0.185 | 0.211 |
| 600 | 0.237 | 0.348 | 0.268 | 0.263 | 0.218 | 0.247 | 0.219 | 0.249 |
| 550 | 0.291 | 0.436 | 0.310 | 0.304 | 0.269 | 0.300 | 0.259 | 0.295 |
| 500 | 0.357 | 0.554 | 0.389 | 0.382 | 0.343 | 0.361 | 0.304 | 0.355 |
| 450 | 0.455 | 0.712 | 0.486 | 0.483 | 0.437 | 0.432 | 0.379 | 0.468 |
| 400 | 0.526 | 0.884 | 0.600 | 0.606 | 0.551 | 0.513 | 0.491 | 0.610 |
| 350 | 0.649 | 1.064 | 0.749 | 0.751 | | 0.603 | 0.633 | 0.825 |
| 300 | 0.791 | | 0.951 | 0.952 | | 0.828 | 0.805 | 1.192 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 329.9 | 327.1 | | | | 314.3 | 342.1 | 344.7 |
| 900 | 331.1 | 313.8 | 352.5 | 356.9 | 358.3 | 316.4 | 344.7 | 343.3 |
| 850 | 327.9 | 314.6 | 351.4 | 362.0 | 369.8 | 313.4 | 347.4 | 341.5 |
| 800 | 324.8 | 313.5 | 345.0 | 363.3 | 370.6 | 320.5 | 339.1 | 334.7 |
| 750 | 320.2 | 293.1 | 337.5 | 360.0 | 370.1 | 314.7 | 324.9 | 327.9 |
| 700 | 305.0 | 275.6 | 325.5 | 356.5 | 364.1 | 307.1 | 311.4 | 321.1 |
| 650 | 269.7 | 259.5 | 313.5 | 335.1 | 325.5 | 299.6 | 301.3 | 304.0 |
| 600 | 278.9 | 238.6 | 301.6 | 305.4 | 286.9 | 291.4 | 291.3 | 285.1 |
| 550 | 275.2 | 213.7 | 289.3 | 275.7 | 241.7 | 281.6 | 281.2 | 266.1 |
| 500 | 271.5 | 207.1 | 273.2 | 265.6 | 193.9 | 271.9 | 271.2 | 244.8 |
| 450 | 267.8 | 218.1 | 257.1 | 255.6 | 146.1 | 262.1 | 241.1 | 217.1 |
| 400 | 264.5 | 252.8 | 241.0 | 245.6 | 98.4 | 252.4 | 196.5 | 189.3 |
| 350 | 280.1 | 293.2 | 222.3 | 235.6 | | 242.6 | 201.9 | 173.7 |
| 300 | 297.7 | | 200.3 | 212.9 | | 213.1 | 210.0 | 436.2 |
| LONG | -14.55 | -8.59 | -2.63 | 3.34 | 9.08 | 14.76 | 20.44 | 25.58 |
| LAT | 80.15 | 80.25 | 80.36 | 80.46 | 80.29 | 80.05 | 79.80 | 79.44 |
| QUAL | 33 | 23 | 33 | 23 | 23 | 23 | 23 | 32 |

PASS 4064 AT RESLUT, 63 724

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 12824 | 12842 | 12900 | 12936 | 12954 |
| 1000 | 0.067 | 0.083 | 0.105 | 0.136 | 0.140 |
| 950 | 0.100 | 0.096 | 0.117 | 0.155 | 0.158 |
| 900 | 0.114 | 0.111 | 0.130 | 0.172 | 0.177 |
| 850 | 0.130 | 0.127 | 0.146 | 0.186 | 0.198 |
| 800 | 0.150 | 0.145 | 0.166 | 0.200 | 0.219 |
| 750 | 0.173 | 0.170 | 0.193 | 0.216 | 0.243 |
| 700 | 0.201 | 0.201 | 0.225 | 0.234 | 0.269 |
| 650 | 0.235 | 0.236 | 0.262 | 0.255 | 0.297 |
| 600 | 0.274 | 0.281 | 0.314 | 0.287 | 0.334 |
| 550 | 0.328 | 0.340 | 0.380 | 0.333 | 0.378 |
| 500 | 0.422 | 0.408 | 0.456 | 0.391 | 0.429 |
| 450 | 0.541 | 0.485 | 0.544 | 0.461 | 0.487 |
| 400 | 0.664 | 0.572 | 0.651 | 0.546 | 0.563 |
| 350 | 0.854 | 0.837 | 0.791 | 0.650 | |
| 300 | 1.055 | 1.197 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | 366.3 | 349.2 | 462.7 | 447.4 | 428.2 |
| 900 | 363.8 | 346.1 | 431.3 | 526.2 | 446.5 |
| 850 | 361.3 | 339.0 | 399.9 | 599.6 | 461.7 |
| 800 | 351.7 | 332.9 | 372.3 | 623.2 | 476.8 |
| 750 | 341.2 | 320.7 | 350.0 | 625.0 | 472.5 |
| 700 | 326.8 | 308.4 | 327.6 | 563.5 | 459.4 |
| 650 | 303.1 | 296.1 | 305.3 | 473.2 | 446.3 |
| 600 | 279.3 | 282.8 | 297.2 | 424.8 | 430.8 |
| 550 | 260.3 | 268.8 | 293.0 | 395.4 | 414.4 |
| 500 | 254.1 | 254.7 | 288.8 | 366.0 | 398.0 |
| 450 | 247.8 | 240.6 | 264.7 | 336.6 | 379.0 |
| 400 | 241.6 | 226.6 | 307.3 | 388.4 | 322.2 |
| 350 | 238.1 | 142.7 | 441.5 | 519.3 | |
| 300 | 240.3 | 49.8 | | | |
| LONG | 29.53 | 33.98 | 38.43 | 44.77 | 47.94 |
| LAT | 78.97 | 78.45 | 77.93 | 76.53 | 75.83 |
| QUAL | 23 | 33 | 22 | 32 | 33 |

PASS 4076 AT SOLANT, 63 724

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 234036 | 234112 | 234147 | 234230 | 234317 | 234353 | 234411 |
| 1000 | 0.085 | 0.091 | 0.098 | 0.096 | 0.098 | 0.112 | 0.126 |
| 950 | 0.089 | 0.097 | 0.102 | 0.104 | 0.106 | 0.123 | 0.137 |
| 900 | 0.091 | 0.101 | 0.107 | 0.110 | 0.116 | 0.137 | 0.149 |
| 850 | 0.095 | 0.106 | 0.113 | 0.116 | 0.131 | 0.152 | 0.163 |
| 800 | 0.099 | 0.116 | 0.120 | 0.124 | 0.148 | 0.168 | 0.180 |
| 750 | 0.109 | 0.124 | 0.131 | 0.135 | 0.169 | 0.188 | 0.205 |
| 700 | 0.121 | 0.132 | 0.145 | 0.150 | 0.194 | 0.216 | 0.238 |
| 650 | 0.134 | 0.149 | 0.161 | 0.177 | 0.223 | 0.260 | 0.302 |
| 600 | 0.147 | 0.174 | 0.191 | 0.220 | 0.278 | 0.344 | 0.383 |
| 550 | 0.174 | 0.209 | 0.244 | 0.292 | 0.351 | 0.464 | 0.539 |
| 500 | 0.224 | 0.269 | 0.348 | 0.431 | 0.533 | 0.753 | 0.904 |
| 450 | 0.332 | 0.412 | 0.562 | 0.739 | 1.007 | 1.352 | 1.459 |
| 400 | 0.587 | 0.762 | 1.152 | 1.312 | 1.958 | 2.339 | 2.501 |
| 350 | 1.025 | 1.381 | 2.035 | 2.338 | 3.372 | 3.913 | 4.159 |
| 300 | | | | | | | 5.787 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 1685.7 | 1093.3 | 1229.7 | 750.5 | 564.6 | 492.5 | 592.0 |
| 900 | 1451.4 | 1081.3 | 989.8 | 869.0 | 485.4 | 483.9 | 557.0 |
| 850 | 1167.0 | 870.9 | 846.0 | 794.3 | 437.5 | 481.5 | 503.8 |
| 800 | 882.6 | 668.6 | 702.3 | 661.0 | 389.7 | 461.1 | 439.4 |
| 750 | 636.4 | 616.6 | 598.9 | 538.9 | 360.1 | 401.3 | 366.6 |
| 700 | 477.8 | 564.5 | 505.9 | 418.4 | 331.2 | 315.9 | 292.2 |
| 650 | 438.8 | 457.9 | 413.0 | 312.1 | 302.2 | 239.7 | 201.7 |
| 600 | 399.8 | 334.7 | 284.6 | 218.0 | 240.4 | 186.6 | 183.6 |
| 550 | 291.1 | 248.0 | 181.7 | 163.8 | 177.7 | 145.6 | 107.5 |
| 500 | 172.7 | 168.4 | 128.3 | 118.1 | 102.2 | 72.4 | 105.3 |
| 450 | 99.2 | 103.7 | 87.7 | 92.3 | 74.3 | 90.5 | 98.8 |
| 400 | 88.8 | 80.0 | 81.9 | 86.5 | 82.7 | 93.8 | 93.1 |
| 350 | 89.0 | 91.2 | 89.8 | 84.9 | 103.4 | 109.0 | 120.9 |
| 300 | | | | | | | 198.0 |
| LONG | -72.67 | -72.27 | -71.90 | -71.49 | -71.08 | -70.79 | -70.65 |
| LAT | -39.17 | -37.16 | -35.20 | -32.79 | -30.16 | -28.13 | -27.12 |
| QUAL | 33 | 33 | 33 | 33 | 23 | 23 | 23 |

PASS 4076 AT AGASTA, 63 724

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 234148 | 234205 | 234317 | 234353 | 234429 | 234504 | 234540 | 234615 |
| 1000 | 0.091 | 0.092 | 0.100 | 0.117 | 0.124 | 0.116 | 0.111 | 0.119 |
| 950 | 0.098 | 0.100 | 0.111 | 0.128 | 0.134 | 0.124 | 0.125 | 0.133 |
| 900 | 0.106 | 0.110 | 0.122 | 0.141 | 0.146 | 0.136 | 0.144 | 0.153 |
| 850 | 0.113 | 0.119 | 0.134 | 0.156 | 0.160 | 0.151 | 0.167 | 0.185 |
| 800 | 0.121 | 0.126 | 0.150 | 0.174 | 0.181 | 0.183 | 0.200 | 0.240 |
| 750 | 0.130 | 0.135 | 0.169 | 0.199 | 0.214 | 0.222 | 0.261 | 0.299 |
| 700 | 0.139 | 0.146 | 0.191 | 0.236 | 0.266 | 0.282 | 0.339 | 0.354 |
| 650 | 0.153 | 0.171 | 0.224 | 0.283 | 0.345 | 0.387 | 0.422 | 0.448 |
| 600 | 0.179 | 0.230 | 0.293 | 0.378 | 0.478 | 0.533 | 0.549 | 0.585 |
| 550 | 0.240 | 0.307 | 0.406 | 0.545 | 0.746 | 0.719 | 0.794 | 0.942 |
| 500 | 0.356 | 0.462 | 0.654 | 0.976 | 1.061 | 1.216 | 1.385 | 1.609 |
| 450 | 0.614 | 0.797 | 1.228 | 1.653 | 1.996 | 2.267 | 2.500 | 2.631 |
| 400 | 1.187 | 1.367 | 2.367 | 2.791 | 3.405 | 3.758 | 3.833 | 3.703 |
| 350 | 2.212 | 2.336 | 3.913 | 4.450 | 5.099 | 5.132 | | |
| 300 | | 3.720 | 5.246 | 6.030 | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | | 533.8 | 520.5 | 613.4 | 578.3 | 376.2 | 393.6 |
| 900 | 715.0 | 624.9 | 495.1 | 497.3 | 543.5 | 491.0 | 333.9 | 317.5 |
| 850 | 729.1 | 723.5 | 450.3 | 464.1 | 461.9 | 403.7 | 298.8 | 236.2 |
| 800 | 680.2 | 705.4 | 417.5 | 402.5 | 378.0 | 279.8 | 251.6 | 221.1 |
| 750 | 625.9 | 622.0 | 384.7 | 349.9 | 291.0 | 232.8 | 193.9 | 244.4 |
| 700 | 571.7 | 519.3 | 351.9 | 296.2 | 224.0 | 187.4 | 214.1 | 242.6 |
| 650 | 471.8 | 244.2 | 305.3 | 242.5 | 175.0 | 169.3 | 203.3 | 200.5 |
| 600 | 251.2 | 185.0 | 210.7 | 164.5 | 136.0 | 160.3 | 168.3 | 157.6 |
| 550 | 148.8 | 152.9 | 137.3 | 117.6 | 116.3 | 135.8 | 119.9 | 104.1 |
| 500 | 117.8 | 109.3 | 95.2 | 89.9 | 111.8 | 89.5 | 86.8 | 96.5 |
| 450 | 85.2 | 93.2 | 78.9 | 98.0 | 84.4 | 87.7 | 98.6 | 121.5 |
| 400 | 78.0 | 92.1 | 84.3 | 99.1 | 107.5 | 124.7 | 151.6 | 208.1 |
| 350 | 91.1 | 99.4 | 126.5 | 130.2 | 148.6 | 224.5 | | |
| 300 | | 131.7 | 339.8 | 234.0 | | | | |
| LONG | -71.89 | -71.72 | -71.08 | -70.79 | -70.51 | -70.25 | -70.01 | -69.77 |
| LAT | -35.14 | -34.19 | -30.16 | -28.13 | -26.11 | -24.14 | -22.12 | -20.14 |
| QUAL | 33 | 33 | 33 | 23 | 23 | 23 | 23 | 23 |

PASS 4076 AT AGASTA, 63 724

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 234708 | 234744 | 234819 | 234913 | 234948 | 235041 | 235117 | 235152 |
| 1000 | 0.110 | 0.122 | 0.106 | 0.111 | 0.112 | 0.107 | 0.122 | 0.127 |
| 950 | 0.130 | 0.147 | 0.123 | 0.130 | 0.130 | 0.118 | 0.137 | 0.141 |
| 900 | 0.162 | 0.184 | 0.150 | 0.157 | 0.152 | 0.131 | 0.153 | 0.157 |
| 850 | 0.206 | 0.218 | 0.189 | 0.193 | 0.185 | 0.159 | 0.173 | 0.179 |
| 800 | 0.245 | 0.261 | 0.234 | 0.239 | 0.234 | 0.209 | 0.202 | 0.206 |
| 750 | 0.287 | 0.304 | 0.281 | 0.294 | 0.305 | 0.274 | 0.241 | 0.244 |
| 700 | 0.345 | 0.370 | 0.338 | 0.362 | 0.386 | 0.375 | 0.329 | 0.297 |
| 650 | 0.436 | 0.466 | 0.450 | 0.459 | 0.478 | 0.529 | 0.476 | 0.381 |
| 600 | 0.594 | 0.674 | 0.662 | 0.688 | 0.697 | 0.721 | 0.744 | 0.563 |
| 550 | 0.995 | 1.082 | 1.067 | 1.100 | 1.109 | 1.172 | 1.193 | 0.936 |
| 500 | 1.591 | 1.696 | 1.683 | 1.803 | 1.810 | 1.935 | 1.979 | 1.607 |
| 450 | 2.403 | 2.416 | 2.396 | 2.686 | 2.855 | 3.115 | 3.295 | 2.753 |
| 400 | 3.229 | | 2.986 | 3.510 | | 4.496 | 4.766 | 4.495 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 263.4 | 261.0 | 309.3 | 284.8 | 314.8 | 493.8 | 448.5 | 457.9 |
| 900 | 220.2 | 304.9 | 254.7 | 261.2 | 280.7 | 369.4 | 407.8 | 414.3 |
| 850 | 252.0 | 286.8 | 224.0 | 252.3 | 244.4 | 277.5 | 354.7 | 370.7 |
| 800 | 277.4 | 303.9 | 259.6 | 240.4 | 214.2 | 200.2 | 299.1 | 327.1 |
| 750 | 278.1 | 280.7 | 247.1 | 224.9 | 194.6 | 174.5 | 242.0 | 281.9 |
| 700 | 234.3 | 236.8 | 221.7 | 208.0 | 186.3 | 156.7 | 167.1 | 235.3 |
| 650 | 192.5 | 187.8 | 167.4 | 179.4 | 178.0 | 143.9 | 126.5 | 181.5 |
| 600 | 146.4 | 122.0 | 125.5 | 116.7 | 140.7 | 134.0 | 112.4 | 115.4 |
| 550 | 103.3 | 108.2 | 107.9 | 104.3 | 106.8 | 102.5 | 105.1 | 97.4 |
| 500 | 113.0 | 126.6 | 125.7 | 114.0 | 103.9 | 103.8 | 93.7 | 93.5 |
| 450 | 143.9 | 181.8 | 181.7 | 146.0 | 127.6 | 114.2 | 112.8 | 96.1 |
| 400 | 233.6 | | 337.9 | 297.7 | | 204.2 | 180.0 | 120.4 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -69.43 | -69.22 | -69.01 | -68.71 | -68.52 | -68.23 | -68.04 | -67.85 |
| LAT | -17.16 | -15.13 | -13.16 | -10.12 | -8.15 | -5.15 | -3.12 | -1.15 |
| QUAL | 23 | 23 | 33 | 23 | 33 | 23 | 23 | 23 |

PASS 4076 AT AGASTA, 63 724

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 235210 |
| 1000 | 0.137 |
| 950 | 0.152 |
| 900 | 0.169 |
| 850 | 0.192 |
| 800 | 0.221 |
| 750 | 0.262 |
| 700 | 0.318 |
| 650 | 0.395 |
| 600 | 0.515 |
| 550 | 0.856 |
| 500 | 1.424 |
| 450 | 2.438 |
| 400 | 3.993 |
| 350 | |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 453.4 |
| 900 | 427.9 |
| 850 | 378.1 |
| 800 | 324.4 |
| 750 | 275.9 |
| 700 | 235.8 |
| 650 | 202.2 |
| 600 | 161.3 |
| 550 | 99.5 |
| 500 | 96.2 |
| 450 | 96.5 |
| 400 | 112.6 |
| 350 | |
| 300 | |

| | |
|---|---|
| LONG | -67.76 |
| LAT | -0.14 |
| QUAL | 23 |

PASS 4077 AT QUITOE, 63 724

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 235414 | 235450 | 235525 | 235618 | 235654 |
| 1000 | 0.104 | 0.102 | 0.100 | 0.137 | 0.088 |
| 950 | 0.121 | 0.118 | 0.120 | 0.150 | 0.107 |
| 900 | 0.137 | 0.136 | 0.144 | 0.171 | 0.125 |
| 850 | 0.160 | 0.162 | 0.172 | 0.202 | 0.154 |
| 800 | 0.189 | 0.202 | 0.206 | 0.242 | 0.190 |
| 750 | 0.225 | 0.252 | 0.269 | 0.292 | 0.236 |
| 700 | 0.266 | 0.319 | 0.347 | 0.352 | 0.302 |
| 650 | 0.321 | 0.410 | 0.443 | 0.421 | 0.382 |
| 600 | 0.387 | 0.520 | 0.603 | 0.587 | 0.475 |
| 550 | 0.463 | 0.712 | 0.802 | 0.949 | 0.707 |
| 500 | 0.565 | 1.151 | 1.156 | 1.427 | 1.140 |
| 450 | 0.798 | 1.855 | 1.857 | 2.167 | 1.788 |
| 400 | 1.148 | 2.855 | 2.860 | 3.327 | 2.865 |
| 350 | 2.243 | 4.156 | 4.256 | 4.854 | 4.427 |
| 300 | 3.906 | 5.392 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | 335.2 | 327.9 | 261.9 | 452.8 | 253.8 |
| 900 | 329.3 | 298.9 | 256.1 | 388.1 | 258.5 |
| 850 | 320.8 | 274.1 | 250.2 | 323.4 | 247.2 |
| 800 | 311.8 | 252.8 | 242.3 | 283.2 | 235.9 |
| 750 | 302.9 | 231.5 | 224.2 | 261.5 | 224.1 |
| 700 | 294.0 | 212.8 | 206.1 | 239.9 | 209.2 |
| 650 | 277.6 | 196.8 | 188.2 | 218.2 | 194.4 |
| 600 | 259.1 | 180.9 | 172.7 | 183.5 | 179.6 |
| 550 | 240.6 | 149.8 | 157.1 | 130.7 | 151.3 |
| 500 | 216.7 | 105.0 | 133.2 | 121.1 | 111.9 |
| 450 | 162.1 | 111.1 | 112.0 | 116.6 | 110.6 |
| 400 | 118.4 | 124.7 | 117.9 | 124.8 | 103.0 |
| 350 | 49.5 | 156.5 | 156.6 | 156.1 | 160.5 |
| 300 | 206.6 | 314.1 | | | |
| LONG | -67.11 | -66.91 | -66.72 | -66.41 | -66.20 |
| LAT | 6.85 | 8.88 | 10.85 | 13.83 | 15.86 |
| QUAL | 23 | 23 | 23 | 23 | 33 |

PASS 4077 AT RESLUT, 63 725

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1216 | 1234 | 1250 | 1308 | 1326 | 1344 | 1456 | 1512 |
| 1000 | 0.048 | 0.080 | 0.055 | 0.064 | 0.072 | 0.072 | 0.086 | 0.087 |
| 950 | 0.059 | 0.095 | 0.066 | 0.078 | 0.083 | 0.084 | 0.102 | 0.103 |
| 900 | 0.071 | 0.112 | 0.079 | 0.094 | 0.097 | 0.098 | 0.121 | 0.122 |
| 850 | 0.085 | 0.130 | 0.094 | 0.111 | 0.112 | 0.116 | 0.142 | 0.142 |
| 800 | 0.101 | 0.149 | 0.111 | 0.131 | 0.133 | 0.136 | 0.164 | 0.168 |
| 750 | 0.119 | 0.185 | 0.133 | 0.157 | 0.158 | 0.163 | 0.193 | 0.200 |
| 700 | 0.140 | 0.234 | 0.160 | 0.189 | 0.188 | 0.193 | 0.227 | 0.237 |
| 650 | 0.177 | 0.294 | 0.191 | 0.226 | 0.226 | 0.229 | 0.270 | 0.283 |
| 600 | 0.214 | 0.365 | 0.236 | 0.276 | 0.276 | 0.279 | 0.324 | 0.336 |
| 550 | 0.266 | 0.452 | 0.290 | 0.337 | 0.335 | 0.337 | 0.387 | 0.402 |
| 500 | 0.331 | 0.553 | 0.353 | 0.408 | 0.402 | 0.405 | 0.476 | 0.518 |
| 450 | 0.407 | 0.667 | 0.425 | 0.489 | 0.479 | 0.481 | 0.626 | 0.667 |
| 400 | 0.513 | 0.848 | 0.507 | 0.580 | 0.564 | 0.631 | 0.812 | 0.847 |
| 350 | 0.684 | 1.072 | 0.667 | 0.758 | 0.769 | 0.821 | 1.028 | 1.061 |
| 300 | 0.894 | 1.253 | 0.866 | 0.978 | 1.024 | 1.037 | 1.253 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | 294.0 | | | 325.5 | 314.6 | | 302.0 |
| 900 | 274.1 | 293.2 | 275.0 | 276.1 | 318.3 | 309.7 | 301.1 | 300.8 |
| 850 | 274.0 | 289.4 | 280.7 | 279.9 | 311.2 | 304.8 | 310.9 | 299.5 |
| 800 | 274.0 | 277.7 | 266.5 | 283.7 | 299.9 | 299.6 | 320.5 | 298.0 |
| 750 | 273.2 | 268.6 | 276.4 | 278.6 | 288.0 | 291.2 | 307.0 | 296.4 |
| 700 | 265.0 | 259.1 | 264.2 | 269.8 | 276.1 | 282.9 | 293.4 | 294.8 |
| 650 | 256.8 | 249.7 | 253.1 | 261.0 | 268.4 | 274.6 | 279.5 | 280.7 |
| 600 | 248.5 | 240.7 | 251.2 | 257.7 | 263.7 | 266.4 | 265.4 | 261.1 |
| 550 | 239.7 | 239.5 | 249.2 | 255.3 | 258.9 | 258.3 | 251.3 | 242.8 |
| 500 | 230.7 | 238.3 | 247.2 | 252.9 | 254.1 | 250.1 | 236.9 | 234.1 |
| 450 | 221.7 | 237.1 | 245.3 | 250.6 | 249.4 | 242.0 | 221.7 | 225.3 |
| 400 | 217.8 | 245.9 | 243.3 | 248.2 | 244.6 | 242.5 | 207.5 | 221.0 |
| 350 | 222.6 | 255.4 | 250.9 | 238.2 | 217.6 | 243.7 | 257.0 | 226.2 |
| 300 | 227.5 | 1099.9 | 217.5 | 227.8 | 189.0 | 258.7 | 338.1 | |
| LONG | -50.03 | -48.98 | -48.04 | -46.84 | -45.43 | -44.03 | -36.78 | -34.53 |
| LAT | 66.55 | 67.46 | 68.28 | 69.18 | 70.07 | 70.95 | 74.33 | 75.02 |
| QUAL | 23 | 22 | 22 | 23 | 22 | 22 | 22 | 23 |

PASS 4077 AT RESLUT, 63 725

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1530 | 1548 | 1606 | 1624 | 1642 | 1700 | 1718 | 1734 |
| 1000 | 0.096 | 0.086 | 0.102 | 0.096 | 0.086 | 0.091 | 0.083 | 0.083 |
| 950 | 0.111 | 0.099 | 0.119 | 0.111 | 0.101 | 0.105 | 0.097 | 0.097 |
| 900 | 0.128 | 0.115 | 0.138 | 0.128 | 0.119 | 0.121 | 0.113 | 0.115 |
| 850 | 0.148 | 0.133 | 0.159 | 0.147 | 0.138 | 0.139 | 0.132 | 0.135 |
| 800 | 0.170 | 0.156 | 0.182 | 0.172 | 0.159 | 0.159 | 0.155 | 0.159 |
| 750 | 0.204 | 0.184 | 0.216 | 0.202 | 0.189 | 0.183 | 0.184 | 0.191 |
| 700 | 0.245 | 0.216 | 0.258 | 0.236 | 0.225 | 0.211 | 0.219 | 0.228 |
| 650 | 0.294 | 0.262 | 0.307 | 0.282 | 0.268 | 0.248 | 0.262 | 0.271 |
| 600 | 0.356 | 0.320 | 0.373 | 0.335 | 0.325 | 0.296 | 0.319 | 0.332 |
| 550 | 0.440 | 0.387 | 0.460 | 0.395 | 0.392 | 0.355 | 0.386 | 0.406 |
| 500 | 0.558 | 0.464 | 0.563 | 0.474 | 0.469 | 0.424 | 0.463 | 0.491 |
| 450 | 0.652 | 0.551 | 0.661 | 0.619 | 0.611 | 0.502 | 0.567 | 0.588 |
| 400 | 0.786 | 0.648 | 0.816 | 0.798 | 0.810 | 0.590 | 0.749 | 0.729 |
| 350 | 1.037 | 0.862 | 1.039 | 1.004 | 1.064 | 0.763 | 0.966 | 0.985 |
| 300 | 1.300 | 1.121 | 1.283 | | | 0.966 | 1.155 | 1.269 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 344.9 | 333.7 | 336.4 | 342.5 | | | 324.2 | 310.3 |
| 900 | 335.4 | 326.0 | 332.9 | 338.3 | 313.2 | 356.7 | 317.6 | 304.8 |
| 850 | 322.7 | 322.2 | 326.3 | 332.1 | 313.2 | 359.0 | 311.0 | 299.4 |
| 800 | 309.9 | 307.6 | 319.7 | 322.2 | 310.5 | 361.2 | 301.9 | 293.0 |
| 750 | 296.7 | 293.1 | 304.2 | 312.3 | 298.6 | 340.3 | 291.2 | 284.0 |
| 700 | 283.4 | 278.5 | 286.9 | 302.0 | 286.7 | 313.3 | 280.5 | 275.1 |
| 650 | 270.1 | 273.5 | 269.5 | 289.9 | 274.4 | 298.6 | 271.1 | 266.2 |
| 600 | 259.8 | 269.3 | 259.1 | 277.9 | 261.4 | 292.5 | 263.0 | 259.5 |
| 550 | 254.1 | 265.0 | 253.3 | 265.9 | 248.4 | 286.4 | 254.9 | 252.9 |
| 500 | 248.4 | 260.7 | 247.4 | 252.8 | 235.3 | 280.3 | 246.7 | 246.3 |
| 450 | 242.7 | 256.5 | 241.6 | 235.3 | 218.5 | 274.2 | 240.2 | 239.7 |
| 400 | 237.0 | 252.2 | 235.8 | 217.7 | 200.4 | 268.1 | 238.1 | 237.4 |
| 350 | 232.5 | 251.7 | 371.5 | 359.3 | 333.5 | 261.4 | 245.4 | 245.1 |
| 300 | 520.4 | 345.5 | 1060.7 | | | 368.3 | 372.2 | 291.0 |
| LONG | -31.80 | -29.07 | -26.96 | -22.07 | -18.19 | -14.31 | -9.09 | -4.45 |
| LAT | 75.77 | 76.52 | 77.22 | 77.83 | 78.43 | 79.04 | 79.41 | 79.74 |
| QUAL | 22 | 22 | 22 | 32 | 22 | 22 | 23 | 33 |

PASS 4077 AT RESLUT, 63 725

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1810 | 1828 | 1846 | 1904 | 1922 | 1940 | 1956 | 2014 |
| 1000 | 0.086 | 0.091 | 0.110 | 0.136 | 0.121 | 0.169 | 0.142 | 0.138 |
| 950 | 0.100 | 0.105 | 0.125 | 0.151 | 0.140 | 0.189 | 0.161 | 0.159 |
| 900 | 0.115 | 0.121 | 0.140 | 0.168 | 0.161 | 0.210 | 0.182 | 0.182 |
| 850 | 0.132 | 0.140 | 0.159 | 0.189 | 0.184 | 0.237 | 0.206 | 0.210 |
| 800 | 0.153 | 0.161 | 0.182 | 0.213 | 0.208 | 0.269 | 0.237 | 0.244 |
| 750 | 0.176 | 0.189 | 0.209 | 0.241 | 0.235 | 0.307 | 0.274 | 0.284 |
| 700 | 0.207 | 0.222 | 0.243 | 0.276 | 0.265 | 0.354 | 0.319 | 0.334 |
| 650 | 0.245 | 0.268 | 0.284 | 0.318 | 0.297 | 0.413 | 0.377 | 0.392 |
| 600 | 0.288 | 0.327 | 0.332 | 0.366 | 0.336 | 0.480 | 0.446 | 0.459 |
| 550 | 0.357 | 0.398 | 0.386 | 0.423 | 0.396 | 0.556 | 0.525 | 0.544 |
| 500 | 0.416 | 0.480 | 0.475 | 0.543 | 0.468 | 0.641 | 0.614 | 0.673 |
| 450 | 0.547 | 0.573 | 0.624 | 0.694 | 0.554 | 0.757 | 0.714 | 0.828 |
| 400 | 0.706 | 0.678 | 0.805 | 0.879 | 0.661 | 0.950 | 0.905 | 1.012 |
| 350 | 0.902 | 0.829 | 1.145 | 1.129 | 0.808 | 1.176 | 1.149 | 1.235 |
| 300 | 1.144 | 1.001 | | 1.428 | | 1.411 | 1.449 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 340.1 | 342.2 | 406.9 | 475.1 | | 426.8 | 402.4 | 355.7 |
| 900 | 347.5 | 340.1 | 396.4 | 451.0 | | 420.7 | 387.1 | 348.4 |
| 850 | 349.3 | 337.9 | 380.4 | 427.0 | 386.9 | 402.6 | 371.1 | 340.0 |
| 800 | 334.2 | 326.2 | 361.0 | 404.0 | 401.8 | 381.2 | 351.5 | 331.0 |
| 750 | 319.1 | 303.4 | 341.7 | 380.9 | 416.8 | 359.9 | 332.0 | 322.0 |
| 700 | 306.5 | 276.5 | 325.7 | 357.5 | 400.1 | 347.3 | 315.5 | 311.7 |
| 650 | 294.1 | 275.8 | 310.0 | 333.9 | 377.4 | 338.2 | 308.8 | 301.1 |
| 600 | 281.7 | 277.9 | 294.4 | 310.4 | 356.6 | 329.1 | 302.2 | 290.5 |
| 550 | 269.4 | 280.0 | 278.7 | 286.7 | 339.7 | 320.0 | 295.5 | 280.2 |
| 500 | 254.2 | 282.0 | 263.6 | 260.4 | 322.8 | 310.9 | 288.8 | 270.8 |
| 450 | 235.6 | 284.1 | 247.7 | 234.1 | 306.0 | 299.5 | 282.1 | 261.4 |
| 400 | 217.1 | 286.2 | 181.9 | 210.5 | 297.0 | 283.2 | 256.9 | 254.4 |
| 350 | 209.5 | 295.3 | 412.1 | 207.8 | 308.4 | 266.9 | 228.3 | 253.4 |
| 300 | 213.1 | 351.0 | | 205.1 | | 394.7 | 215.0 | |
| LONG | 6.43 | 12.45 | 18.46 | 24.37 | 29.88 | 35.40 | 40.30 | 44.81 |
| LAT | 80.30 | 80.35 | 80.39 | 80.35 | 80.06 | 79.77 | 79.51 | 79.01 |
| QUAL | 33 | 22 | 32 | 33 | 32 | 32 | 23 | 33 |

PASS 4077 AT RESLUT, 63 725

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 2052 | 2050 | 2106 |
| 1000 | 0.115 | 0.124 | 0.143 |
| 950 | 0.134 | 0.144 | 0.160 |
| 900 | 0.156 | 0.167 | 0.180 |
| 850 | 0.182 | 0.192 | 0.201 |
| 800 | 0.215 | 0.224 | 0.230 |
| 750 | 0.256 | 0.262 | 0.266 |
| 700 | 0.303 | 0.306 | 0.308 |
| 650 | 0.358 | 0.362 | 0.366 |
| 600 | 0.433 | 0.428 | 0.437 |
| 550 | 0.522 | 0.503 | 0.520 |
| 500 | 0.623 | 0.608 | 0.615 |
| 450 | 0.736 | 0.772 | 0.722 |
| 400 | 0.868 | 0.971 | 0.904 |
| 350 | 1.111 | 1.223 | 1.160 |
| 300 | 1.457 | | 1.292 |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 322.8 | 327.7 | 428.8 |
| 900 | 313.8 | 330.5 | 411.7 |
| 850 | 304.7 | 332.4 | 394.7 |
| 800 | 299.0 | 324.5 | 369.2 |
| 750 | 294.3 | 316.6 | 342.2 |
| 700 | 289.5 | 308.1 | 315.1 |
| 650 | 284.8 | 296.9 | 303.5 |
| 600 | 282.0 | 285.7 | 295.7 |
| 550 | 279.3 | 274.5 | 288.0 |
| 500 | 276.5 | 261.7 | 280.2 |
| 450 | 273.8 | 246.5 | 272.4 |
| 400 | 251.5 | 231.3 | 309.6 |
| 350 | 192.9 | 429.8 | 370.5 |
| 300 | 1947.3 | | 674.6 |
| LONG | 49.03 | 53.25 | 56.60 |
| LAT | 78.45 | 77.89 | 77.34 |
| QUAL | 22 | 33 | 22 |

PASS 4084 AT COLEGE, 63 725

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 123719 | 123755 | 123830 | 123906 | 123941 | 124017 | 124052 | 124128 |
| 1000 | 0.094 | 0.118 | 0.121 | 0.113 | 0.117 | 0.116 | 0.094 | 0.131 |
| 950 | 0.107 | 0.132 | 0.140 | 0.133 | 0.135 | 0.137 | 0.114 | 0.151 |
| 900 | 0.122 | 0.148 | 0.157 | 0.155 | 0.154 | 0.156 | 0.133 | 0.171 |
| 850 | 0.139 | 0.168 | 0.178 | 0.178 | 0.176 | 0.182 | 0.156 | 0.196 |
| 800 | 0.160 | 0.191 | 0.203 | 0.205 | 0.203 | 0.212 | 0.183 | 0.225 |
| 750 | 0.184 | 0.218 | 0.235 | 0.236 | 0.234 | 0.246 | 0.214 | 0.259 |
| 700 | 0.212 | 0.257 | 0.273 | 0.276 | 0.271 | 0.291 | 0.253 | 0.297 |
| 650 | 0.261 | 0.305 | 0.323 | 0.329 | 0.328 | 0.342 | 0.297 | 0.352 |
| 600 | 0.320 | 0.367 | 0.386 | 0.392 | 0.397 | 0.400 | 0.348 | 0.423 |
| 550 | 0.390 | 0.446 | 0.465 | 0.486 | 0.478 | 0.485 | 0.434 | 0.507 |
| 500 | 0.483 | 0.555 | 0.585 | 0.602 | 0.605 | 0.610 | 0.540 | 0.625 |
| 450 | 0.613 | 0.697 | 0.737 | 0.761 | 0.768 | 0.770 | 0.674 | 0.770 |
| 400 | 0.787 | 0.871 | 0.924 | 0.976 | 1.000 | 0.979 | 0.846 | 0.961 |
| 350 | 1.029 | 1.103 | 1.164 | 1.268 | 1.305 | 1.260 | 1.061 | 1.205 |
| 300 | 1.325 | 1.382 | 1.467 | 1.656 | | | 1.336 | 1.526 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 900 | 355.3 | 408.3 | 391.4 | 334.2 | 353.9 | 322.7 | 300.3 | 365.2 |
| 850 | 351.4 | 386.6 | 378.9 | 346.9 | 345.9 | 321.6 | 306.4 | 362.7 |
| 800 | 335.3 | 366.5 | 366.4 | 335.9 | 333.9 | 320.5 | 306.8 | 356.4 |
| 750 | 319.1 | 346.4 | 342.1 | 325.0 | 321.8 | 316.5 | 304.6 | 337.9 |
| 700 | 302.9 | 313.7 | 312.9 | 308.0 | 308.0 | 305.4 | 294.5 | 319.4 |
| 650 | 286.0 | 283.6 | 291.0 | 286.1 | 288.4 | 294.2 | 284.4 | 301.2 |
| 600 | 269.2 | 265.2 | 272.2 | 264.2 | 268.7 | 283.0 | 274.3 | 283.1 |
| 550 | 252.3 | 245.7 | 252.7 | 247.2 | 249.0 | 262.7 | 256.8 | 265.0 |
| 500 | 234.0 | 224.0 | 229.3 | 230.4 | 227.7 | 233.4 | 239.2 | 251.3 |
| 450 | 213.7 | 222.1 | 219.4 | 212.1 | 206.0 | 213.6 | 228.4 | 237.9 |
| 400 | 198.3 | 220.9 | 220.4 | 196.8 | 200.4 | 205.7 | 225.5 | 227.1 |
| 350 | 193.9 | 224.6 | 221.1 | 191.3 | 214.1 | 209.7 | 221.2 | 216.8 |
| 300 | 209.0 | 232.7 | 228.6 | 226.5 | | | 220.5 | 216.7 |
| LONG | -169.95 | -157.95 | -147.71 | -137.88 | -130.51 | -123.98 | -118.80 | -114.67 |
| LAT | 80.38 | 80.24 | 79.57 | 78.71 | 77.51 | 76.15 | 74.68 | 73.04 |
| QUAL | 23 | 23 | 23 | 23 | 22 | 23 | 23 | 33 |

PASS 4084 AT COLEGE, 63 725

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 124203 | 124237 | 124314 | 124350 | 124425 | 124501 |
| 1000 | 0.162 | 0.164 | 0.137 | 0.157 | 0.178 | 0.153 |
| 950 | 0.186 | 0.181 | 0.152 | 0.178 | 0.201 | 0.171 |
| 900 | 0.209 | 0.203 | 0.173 | 0.200 | 0.226 | 0.198 |
| 850 | 0.236 | 0.228 | 0.198 | 0.224 | 0.255 | 0.226 |
| 800 | 0.269 | 0.256 | 0.225 | 0.251 | 0.289 | 0.259 |
| 750 | 0.311 | 0.294 | 0.257 | 0.287 | 0.327 | 0.299 |
| 700 | 0.361 | 0.339 | 0.302 | 0.329 | 0.380 | 0.345 |
| 650 | 0.425 | 0.401 | 0.356 | 0.381 | 0.450 | 0.409 |
| 600 | 0.534 | 0.481 | 0.426 | 0.457 | 0.534 | 0.488 |
| 550 | 0.669 | 0.583 | 0.535 | 0.551 | 0.639 | 0.587 |
| 500 | 0.833 | 0.711 | 0.670 | 0.678 | 0.784 | 0.724 |
| 450 | 1.028 | 0.890 | 0.851 | 0.840 | 0.974 | 0.899 |
| 400 | 1.288 | 1.122 | 1.081 | 1.058 | 1.218 | 1.127 |
| 350 | 1.626 | 1.427 | 1.369 | 1.339 | 1.467 | 1.412 |
| 300 | 2.055 | 1.804 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | |
|---|---|---|---|---|---|---|
| 950 | | 440.4 | 397.7 | | 404.5 | 368.2 |
| 900 | 391.1 | 425.2 | 385.4 | 423.3 | 405.3 | 359.8 |
| 850 | 376.0 | 409.6 | 371.6 | 409.5 | 395.1 | 359.4 |
| 800 | 355.3 | 390.7 | 357.0 | 393.5 | 374.3 | 352.5 |
| 750 | 332.0 | 359.5 | 338.9 | 370.3 | 353.6 | 336.5 |
| 700 | 308.8 | 328.3 | 314.9 | 347.2 | 334.0 | 320.5 |
| 650 | 285.9 | 302.3 | 291.0 | 321.3 | 315.0 | 301.2 |
| 600 | 264.3 | 278.7 | 266.8 | 288.2 | 296.1 | 281.6 |
| 550 | 242.8 | 257.2 | 242.2 | 258.2 | 274.1 | 262.4 |
| 500 | 233.9 | 237.8 | 220.2 | 242.7 | 244.0 | 244.3 |
| 450 | 231.5 | 225.4 | 213.4 | 229.0 | 238.6 | 230.5 |
| 400 | 217.5 | 215.8 | 212.2 | 219.3 | 247.7 | 223.8 |
| 350 | 216.5 | 214.2 | 222.2 | 229.4 | 352.1 | 227.8 |
| 300 | 227.7 | 212.9 | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| LONG | -111.08 | -108.49 | -105.93 | -103.86 | -102.18 | -100.59 |
| LAT | 71.40 | 69.72 | 67.87 | 66.03 | 64.21 | 62.33 |
| QUAL | 33 | 33 | 33 | 32 | 32 | 33 |

PASS 4084 AT GFORKS, 63 725

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 124537 | 124612 | 124630 | 124719 | 124754 | 124830 | 124905 | 124941 |
| 1000 | 0.117 | 0.133 | 0.150 | 0.069 | 0.062 | 0.053 | 0.049 | 0.049 |
| 950 | 0.133 | 0.145 | 0.168 | 0.081 | 0.073 | 0.062 | 0.058 | 0.058 |
| 900 | 0.150 | 0.160 | 0.189 | 0.094 | 0.085 | 0.071 | 0.067 | 0.068 |
| 850 | 0.169 | 0.180 | 0.212 | 0.108 | 0.098 | 0.081 | 0.077 | 0.080 |
| 800 | 0.192 | 0.206 | 0.242 | 0.126 | 0.113 | 0.093 | 0.089 | 0.094 |
| 750 | 0.219 | 0.238 | 0.277 | 0.145 | 0.131 | 0.106 | 0.102 | 0.112 |
| 700 | 0.256 | 0.275 | 0.317 | 0.169 | 0.151 | 0.126 | 0.120 | 0.133 |
| 650 | 0.301 | 0.318 | 0.368 | 0.203 | 0.182 | 0.153 | 0.146 | 0.162 |
| 600 | 0.354 | 0.366 | 0.431 | 0.243 | 0.219 | 0.184 | 0.178 | 0.197 |
| 550 | 0.431 | 0.452 | 0.507 | 0.289 | 0.267 | 0.228 | 0.218 | 0.245 |
| 500 | 0.531 | 0.561 | 0.638 | 0.368 | 0.334 | 0.284 | 0.275 | 0.311 |
| 450 | 0.658 | 0.700 | 0.806 | 0.470 | 0.435 | 0.353 | 0.342 | 0.403 |
| 400 | 0.831 | 0.871 | 1.030 | 0.615 | 0.573 | 0.486 | 0.475 | 0.550 |
| 350 | 1.060 | 1.100 | 1.277 | 0.808 | 0.754 | 0.661 | 0.659 | 0.745 |
| 300 | 1.365 | 1.385 | | 1.034 | 0.975 | 0.890 | 0.889 | 1.001 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 400.7 | 516.4 | 434.9 | 327.3 | 325.4 | 341.9 | | 304.1 |
| 900 | 399.2 | 467.4 | 415.4 | 331.1 | 331.9 | 354.1 | 338.3 | 301.0 |
| 850 | 391.6 | 418.8 | 395.8 | 330.3 | 331.5 | 344.8 | 331.0 | 296.6 |
| 800 | 369.4 | 372.3 | 382.2 | 323.6 | 326.0 | 335.5 | 323.6 | 291.1 |
| 750 | 347.2 | 340.1 | 369.3 | 316.8 | 320.5 | 326.2 | 316.2 | 285.6 |
| 700 | 327.2 | 326.8 | 356.5 | 307.4 | 315.0 | 305.9 | 301.8 | 277.5 |
| 650 | 307.3 | 313.5 | 332.9 | 289.2 | 292.2 | 280.7 | 280.2 | 261.5 |
| 600 | 287.4 | 300.2 | 300.0 | 271.0 | 268.2 | 255.5 | 258.5 | 245.5 |
| 550 | 266.9 | 270.6 | 267.7 | 252.8 | 241.0 | 236.0 | 236.9 | 226.3 |
| 500 | 246.3 | 240.1 | 242.3 | 229.3 | 207.0 | 218.1 | 215.3 | 204.3 |
| 450 | 228.5 | 229.0 | 217.2 | 205.1 | 196.0 | 200.3 | 193.7 | 185.5 |
| 400 | 215.5 | 224.4 | 217.4 | 189.0 | 191.5 | 182.8 | 174.2 | 171.4 |
| 350 | 204.6 | 220.9 | 281.2 | 194.1 | 195.3 | 169.7 | 163.6 | 169.0 |
| 300 | 195.2 | 218.2 | | 232.8 | 221.4 | 177.9 | 180.8 | 184.0 |
| LONG | -99.33 | -98.19 | -97.68 | -96.40 | -95.58 | -94.85 | -94.19 | -93.59 |
| LAT | 60.41 | 58.55 | 57.58 | 54.94 | 53.04 | 51.07 | 49.16 | 47.18 |
| QUAL | 33 | 33 | 21 | 21 | 21 | 12 | 22 | 22 |

PASS 4084 AT GFORKS, 63 725

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 125016 | 125052 | 125127 | 125203 | 125238 | 125314 | 125349 | 125425 |
| 1000 | 0.055 | 0.057 | 0.058 | 0.059 | 0.066 | 0.072 | 0.074 | 0.081 |
| 950 | 0.063 | 0.067 | 0.068 | 0.069 | 0.076 | 0.083 | 0.084 | 0.093 |
| 900 | 0.073 | 0.077 | 0.078 | 0.081 | 0.088 | 0.096 | 0.097 | 0.106 |
| 850 | 0.085 | 0.088 | 0.091 | 0.095 | 0.101 | 0.111 | 0.113 | 0.122 |
| 800 | 0.099 | 0.101 | 0.108 | 0.112 | 0.117 | 0.130 | 0.132 | 0.141 |
| 750 | 0.115 | 0.116 | 0.128 | 0.133 | 0.137 | 0.152 | 0.158 | 0.167 |
| 700 | 0.136 | 0.139 | 0.151 | 0.157 | 0.160 | 0.177 | 0.191 | 0.197 |
| 650 | 0.164 | 0.166 | 0.180 | 0.189 | 0.192 | 0.210 | 0.228 | 0.233 |
| 600 | 0.197 | 0.201 | 0.219 | 0.227 | 0.229 | 0.254 | 0.281 | 0.284 |
| 550 | 0.242 | 0.244 | 0.266 | 0.281 | 0.285 | 0.311 | 0.345 | 0.345 |
| 500 | 0.300 | 0.307 | 0.341 | 0.352 | 0.365 | 0.400 | 0.425 | 0.453 |
| 450 | 0.369 | 0.396 | 0.451 | 0.460 | 0.492 | 0.553 | 0.568 | 0.596 |
| 400 | 0.511 | 0.530 | 0.608 | 0.610 | 0.681 | 0.768 | 0.768 | 0.837 |
| 350 | 0.717 | 0.742 | 0.835 | 0.852 | 0.940 | 1.049 | 1.081 | 1.215 |
| 300 | 0.975 | | | | 1.274 | 1.449 | | 1.698 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 334.1 | 326.5 | 330.8 | 310.5 | 348.5 | 332.6 | 350.2 | 358.9 |
| 900 | 331.9 | 354.0 | 318.3 | 308.3 | 342.0 | 330.8 | 331.4 | 350.4 |
| 850 | 325.4 | 344.6 | 307.5 | 307.4 | 335.5 | 328.1 | 316.5 | 337.2 |
| 800 | 316.0 | 335.2 | 302.4 | 302.1 | 325.8 | 321.4 | 302.2 | 324.2 |
| 750 | 306.6 | 322.2 | 297.4 | 295.3 | 316.0 | 312.8 | 290.4 | 311.4 |
| 700 | 294.1 | 302.2 | 292.3 | 288.2 | 304.7 | 304.1 | 278.6 | 298.6 |
| 650 | 279.5 | 282.3 | 280.8 | 270.8 | 279.7 | 286.3 | 266.8 | 283.6 |
| 600 | 264.8 | 259.7 | 257.6 | 253.3 | 254.6 | 258.9 | 249.7 | 251.8 |
| 550 | 241.6 | 235.5 | 234.5 | 231.5 | 224.9 | 226.7 | 231.7 | 220.0 |
| 500 | 214.3 | 213.0 | 195.3 | 208.3 | 193.0 | 176.1 | 212.3 | 197.3 |
| 450 | 192.6 | 191.5 | 175.6 | 188.0 | 172.9 | 167.2 | 184.9 | 174.9 |
| 400 | 172.2 | 169.6 | 168.7 | 168.7 | 158.8 | 161.4 | 159.7 | 146.8 |
| 350 | 154.5 | 150.5 | 147.6 | 156.3 | 159.7 | 158.3 | 143.7 | 143.4 |
| 300 | 176.7 | | | | 198.9 | 166.0 | | 163.1 |
| LONG | -93.05 | -92.53 | -92.09 | -91.65 | -91.27 | -90.89 | -90.56 | -90.23 |
| LAT | 45.26 | 43.27 | 41.33 | 39.33 | 37.38 | 35.38 | 33.42 | 31.41 |
| QUAL | 23 | 33 | 33 | 33 | 22 | 23 | 23 | 23 |

PASS 4084 AT GFORKS, 63 725

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 125500 | 125535 | 125611 | 125720 | 125755 | 125813 |
| 1000 | 0.081 | 0.095 | 0.097 | 0.079 | 0.091 | 0.081 |
| 950 | 0.093 | 0.108 | 0.108 | 0.089 | 0.101 | 0.091 |
| 900 | 0.108 | 0.122 | 0.122 | 0.101 | 0.112 | 0.103 |
| 850 | 0.125 | 0.139 | 0.138 | 0.116 | 0.126 | 0.115 |
| 800 | 0.145 | 0.160 | 0.157 | 0.135 | 0.146 | 0.133 |
| 750 | 0.171 | 0.191 | 0.185 | 0.159 | 0.172 | 0.155 |
| 700 | 0.204 | 0.227 | 0.221 | 0.189 | 0.204 | 0.181 |
| 650 | 0.244 | 0.270 | 0.265 | 0.226 | 0.242 | 0.211 |
| 600 | 0.303 | 0.323 | 0.318 | 0.268 | 0.293 | 0.244 |
| 550 | 0.376 | 0.395 | 0.394 | 0.337 | 0.365 | 0.298 |
| 500 | 0.477 | 0.503 | 0.500 | 0.431 | 0.460 | 0.383 |
| 450 | 0.628 | 0.667 | 0.670 | 0.584 | 0.622 | 0.516 |
| 400 | 0.865 | 0.931 | 0.934 | 0.813 | 0.863 | 0.705 |
| 350 | 1.277 | 1.354 | 1.385 | 1.234 | 1.242 | 1.028 |
| 300 | | 1.983 | 2.195 | 1.963 | 1.816 | 1.597 |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 330.0 | 386.9 | 421.7 | 420.6 | 458.7 | 449.3 |
| 900 | 330.1 | 369.6 | 390.0 | 370.9 | 414.0 | 394.9 |
| 850 | 324.4 | 345.6 | 366.5 | 341.8 | 369.3 | 362.3 |
| 800 | 318.7 | 329.8 | 342.9 | 328.4 | 346.7 | 350.1 |
| 750 | 301.3 | 315.4 | 323.3 | 315.0 | 328.8 | 337.8 |
| 700 | 278.9 | 304.9 | 304.7 | 298.6 | 310.8 | 325.6 |
| 650 | 257.2 | 294.5 | 286.2 | 276.2 | 292.9 | 313.4 |
| 600 | 240.5 | 274.2 | 263.8 | 253.8 | 267.7 | 301.2 |
| 550 | 223.7 | 231.3 | 228.4 | 223.4 | 230.4 | 262.9 |
| 500 | 203.3 | 199.6 | 195.4 | 190.8 | 195.9 | 195.0 |
| 450 | 177.8 | 174.8 | 165.9 | 165.7 | 170.3 | 167.7 |
| 400 | 146.0 | 142.5 | 142.6 | 141.0 | 148.6 | 152.9 |
| 350 | 136.4 | 133.8 | 119.1 | 114.8 | 136.6 | 123.7 |
| 300 | | 128.5 | 111.6 | 101.6 | 133.3 | 125.9 |
| LONG | -89.93 | -89.66 | -89.39 | -88.91 | -88.67 | -88.56 |
| LAT | 29.46 | 27.50 | 25.48 | 21.61 | 19.64 | 18.63 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 4090 AT AGASTA, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1920 | 1956 | 2031 | 2107 | 2142 | 2218 | 2253 | 2329 |
| 1000 | 0.111 | 0.107 | 0.104 | 0.110 | 0.105 | 0.111 | 0.116 | 0.122 |
| 950 | 0.117 | 0.113 | 0.109 | 0.115 | 0.113 | 0.119 | 0.127 | 0.133 |
| 900 | 0.122 | 0.120 | 0.113 | 0.122 | 0.122 | 0.129 | 0.139 | 0.146 |
| 850 | 0.128 | 0.125 | 0.117 | 0.132 | 0.134 | 0.143 | 0.154 | 0.164 |
| 800 | 0.134 | 0.131 | 0.125 | 0.146 | 0.149 | 0.162 | 0.173 | 0.188 |
| 750 | 0.143 | 0.140 | 0.151 | 0.160 | 0.167 | 0.185 | 0.196 | 0.218 |
| 700 | 0.155 | 0.152 | 0.173 | 0.179 | 0.193 | 0.216 | 0.230 | 0.259 |
| 650 | 0.171 | 0.168 | 0.189 | 0.209 | 0.226 | 0.254 | 0.281 | 0.313 |
| 600 | 0.198 | 0.199 | 0.200 | 0.246 | 0.265 | 0.299 | 0.357 | 0.402 |
| 550 | 0.243 | 0.246 | 0.286 | 0.311 | 0.350 | 0.377 | 0.467 | 0.594 |
| 500 | 0.335 | 0.342 | 0.382 | 0.446 | 0.530 | 0.623 | 0.759 | 0.977 |
| 450 | 0.511 | 0.541 | 0.578 | 0.738 | 0.910 | 1.014 | 1.431 | 1.833 |
| 400 | 0.842 | 0.884 | 0.987 | 1.313 | 1.671 | 1.942 | 2.681 | 3.213 |
| 350 | 1.269 | 1.375 | 1.728 | 2.248 | 2.759 | 3.429 | 4.482 | 4.838 |
| 300 | | | 2.634 | 3.474 | 4.261 | 5.422 | 6.300 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 1091.3 | 1080.1 | 1290.4 | 1015.5 | 635.1 | 621.3 | 541.7 | 543.6 |
| 900 | 1134.3 | 979.4 | 1124.5 | 783.3 | 544.7 | 534.8 | 490.7 | 460.8 |
| 850 | 1025.5 | 971.4 | 958.6 | 657.5 | 501.8 | 463.1 | 452.2 | 413.6 |
| 800 | 865.3 | 900.6 | 760.5 | 549.4 | 458.9 | 406.6 | 414.5 | 374.9 |
| 750 | 714.2 | 678.7 | 452.9 | 470.5 | 416.1 | 350.0 | 368.2 | 336.2 |
| 700 | 581.7 | 542.4 | 396.5 | 400.3 | 366.1 | 316.9 | 289.8 | 290.2 |
| 650 | 450.6 | 419.4 | 380.9 | 341.1 | 314.5 | 284.0 | 238.6 | 238.8 |
| 600 | 324.2 | 276.6 | 365.3 | 281.9 | 262.8 | 251.1 | 206.5 | 182.6 |
| 550 | 199.7 | 203.3 | 171.2 | 195.7 | 167.8 | 201.1 | 161.8 | 116.8 |
| 500 | 138.2 | 126.4 | 149.5 | 128.3 | 107.2 | 100.0 | 93.5 | 92.9 |
| 450 | 106.2 | 104.5 | 99.0 | 96.4 | 90.5 | 91.9 | 77.0 | 83.5 |
| 400 | 111.0 | 108.1 | 91.5 | 86.6 | 90.6 | 81.9 | 85.1 | 103.2 |
| 350 | 147.4 | 124.7 | 99.0 | 101.6 | 105.0 | 96.8 | 117.9 | 145.2 |
| 300 | | | 175.7 | 141.4 | 134.1 | 135.8 | 233.3 | |
| LONG | -83.15 | -82.81 | -82.51 | -82.21 | -81.93 | -81.66 | -81.42 | -81.18 |
| LAT | -34.55 | -32.53 | -30.57 | -28.56 | -26.59 | -24.57 | -22.59 | -20.57 |
| QUAL | 21 | 23 | 13 | 23 | 23 | 23 | 23 | 23 |

PASS 4090 AT AGASTA, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 2404 | 2440 | 2457 | 2533 | 2608 | 2644 | 2719 | 2737 |
| 1000 | 0.118 | 0.120 | 0.120 | 0.106 | 0.122 | 0.110 | 0.123 | 0.117 |
| 950 | 0.128 | 0.133 | 0.131 | 0.118 | 0.135 | 0.124 | 0.140 | 0.132 |
| 900 | 0.141 | 0.148 | 0.144 | 0.132 | 0.150 | 0.140 | 0.158 | 0.150 |
| 850 | 0.160 | 0.166 | 0.161 | 0.149 | 0.169 | 0.159 | 0.180 | 0.174 |
| 800 | 0.183 | 0.188 | 0.185 | 0.170 | 0.194 | 0.182 | 0.208 | 0.206 |
| 750 | 0.211 | 0.219 | 0.218 | 0.202 | 0.231 | 0.220 | 0.243 | 0.247 |
| 700 | 0.252 | 0.267 | 0.264 | 0.242 | 0.280 | 0.275 | 0.307 | 0.305 |
| 650 | 0.316 | 0.328 | 0.331 | 0.329 | 0.410 | 0.374 | 0.393 | 0.380 |
| 600 | 0.434 | 0.502 | 0.533 | 0.524 | 0.626 | 0.570 | 0.576 | 0.545 |
| 550 | 0.678 | 0.794 | 0.822 | 0.802 | 0.989 | 0.951 | 0.956 | 0.906 |
| 500 | 1.158 | 1.346 | 1.359 | 1.359 | 1.611 | 1.603 | 1.648 | 1.619 |
| 450 | 2.086 | 2.254 | 2.264 | 2.177 | 2.488 | 2.596 | 2.735 | 2.716 |
| 400 | 3.443 | 3.581 | 3.497 | 3.297 | 3.730 | 3.944 | 4.102 | 4.118 |
| 350 | 5.057 | | 4.719 | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 526.5 | 465.5 | 522.6 | 452.3 | 473.7 | 408.7 | 404.1 | 389.4 |
| 900 | 459.8 | 439.5 | 472.3 | 430.2 | 439.8 | 393.4 | 380.7 | 352.6 |
| 850 | 407.2 | 399.7 | 413.4 | 378.0 | 384.1 | 354.3 | 350.1 | 320.0 |
| 800 | 360.1 | 350.6 | 341.4 | 326.8 | 324.6 | 313.9 | 316.1 | 293.7 |
| 750 | 307.9 | 300.2 | 284.3 | 280.6 | 267.6 | 264.8 | 280.5 | 267.5 |
| 700 | 257.2 | 248.3 | 236.6 | 234.3 | 210.6 | 212.5 | 227.9 | 230.6 |
| 650 | 207.2 | 196.4 | 185.8 | 172.6 | 149.0 | 158.8 | 174.8 | 191.5 |
| 600 | 152.4 | 131.1 | 110.1 | 110.2 | 116.2 | 110.7 | 116.2 | 124.6 |
| 550 | 105.9 | 104.4 | 109.6 | 108.2 | 106.5 | 98.5 | 96.7 | 93.3 |
| 500 | 86.9 | 93.1 | 91.2 | 99.7 | 111.1 | 100.5 | 95.9 | 92.3 |
| 450 | 90.1 | 100.7 | 107.7 | 110.6 | 117.7 | 109.5 | 108.4 | 103.7 |
| 400 | 113.1 | 128.8 | 133.7 | 155.7 | 152.6 | 148.0 | 157.5 | 147.9 |
| 350 | 157.8 | | 279.8 | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -80.96 | -80.73 | -80.63 | -80.42 | -80.22 | -80.02 | -79.83 | -79.73 |
| LAT | -18.60 | -16.58 | -15.62 | -13.59 | -11.62 | -9.58 | -7.61 | -6.60 |
| QUAL | 23 | 23 | 22 | 21 | 23 | 23 | 33 | 33 |

PASS 4090 AT AGASTA, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 2813 | 2830 |
| 1000 | 0.119 | 0.103 |
| 950 | 0.134 | 0.118 |
| 900 | 0.152 | 0.137 |
| 850 | 0.173 | 0.159 |
| 800 | 0.208 | 0.191 |
| 750 | 0.254 | 0.236 |
| 700 | 0.314 | 0.292 |
| 650 | 0.408 | 0.370 |
| 600 | 0.525 | 0.491 |
| 550 | 0.811 | 0.726 |
| 500 | 1.424 | 1.244 |
| 450 | 2.475 | 2.266 |
| 400 | 4.068 | 3.828 |
| 350 | | |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 403.8 | 347.1 |
| 900 | 362.4 | 318.2 |
| 850 | 319.7 | 291.9 |
| 800 | 287.3 | 271.7 |
| 750 | 255.3 | 254.2 |
| 700 | 223.9 | 236.6 |
| 650 | 194.6 | 199.4 |
| 600 | 165.2 | 156.4 |
| 550 | 114.4 | 116.8 |
| 500 | 85.6 | 80.5 |
| 450 | 94.6 | 87.8 |
| 400 | 126.3 | 110.1 |
| 350 | | |
| 300 | | |

| | | |
|---|---|---|
| LONG | -79.53 | -79.44 |
| LAT | -4.57 | -3.61 |
| QUAL | 23 | 33 |

PASS 4091 AT QUITOE, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 3056 | 3131 | 3224 | 3352 | 3428 | 3503 | 3557 | 3632 |
| 1000 | 0.096 | 0.094 | 0.104 | 0.101 | 0.103 | 0.098 | 0.090 | 0.094 |
| 950 | 0.107 | 0.106 | 0.118 | 0.120 | 0.118 | 0.117 | 0.107 | 0.111 |
| 900 | 0.121 | 0.120 | 0.135 | 0.144 | 0.134 | 0.131 | 0.123 | 0.127 |
| 850 | 0.138 | 0.138 | 0.155 | 0.173 | 0.166 | 0.164 | 0.148 | 0.148 |
| 800 | 0.160 | 0.162 | 0.184 | 0.213 | 0.211 | 0.208 | 0.184 | 0.186 |
| 750 | 0.188 | 0.192 | 0.220 | 0.277 | 0.268 | 0.264 | 0.229 | 0.235 |
| 700 | 0.229 | 0.240 | 0.271 | 0.356 | 0.345 | 0.336 | 0.290 | 0.296 |
| 650 | 0.307 | 0.351 | 0.343 | 0.468 | 0.445 | 0.443 | 0.374 | 0.382 |
| 600 | 0.495 | 0.535 | 0.475 | 0.631 | 0.565 | 0.572 | 0.475 | 0.489 |
| 550 | 0.873 | 0.841 | 0.738 | 0.864 | 0.835 | 0.749 | 0.744 | 0.745 |
| 500 | 1.467 | 1.624 | 1.235 | 1.420 | 1.338 | 1.284 | 1.161 | 1.166 |
| 450 | 2.456 | 2.715 | 2.323 | 2.181 | 2.129 | 2.042 | 1.765 | 1.792 |
| 400 | 3.741 | 4.154 | 3.906 | 3.386 | 3.308 | 3.258 | 2.883 | 2.826 |
| 350 | | | 5.550 | | 4.503 | | | |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 435.4 | 420.3 | 371.1 | 270.8 | 325.2 | 277.7 | 293.1 | 309.1 |
| 900 | 402.6 | 384.2 | 352.8 | 259.3 | 296.7 | 276.2 | 285.8 | 294.1 |
| 850 | 362.8 | 333.9 | 327.6 | 247.8 | 273.7 | 259.3 | 270.4 | 278.1 |
| 800 | 321.2 | 292.7 | 294.6 | 234.5 | 250.7 | 242.3 | 252.4 | 258.8 |
| 750 | 289.2 | 267.2 | 262.0 | 216.4 | 227.7 | 225.3 | 234.4 | 239.5 |
| 700 | 206.9 | 164.0 | 232.4 | 198.3 | 207.4 | 208.1 | 213.9 | 220.2 |
| 650 | 147.5 | 135.6 | 188.2 | 179.5 | 189.7 | 190.4 | 189.8 | 192.8 |
| 600 | 94.6 | 116.1 | 137.4 | 159.9 | 172.0 | 172.6 | 165.6 | 164.3 |
| 550 | 91.8 | 98.0 | 106.5 | 139.3 | 136.6 | 152.8 | 133.1 | 138.3 |
| 500 | 99.3 | 88.1 | 90.8 | 112.8 | 107.9 | 112.7 | 113.9 | 115.9 |
| 450 | 108.4 | 105.4 | 89.0 | 116.1 | 111.0 | 108.8 | 111.8 | 112.5 |
| 400 | 139.2 | 152.5 | 111.3 | 125.8 | 132.8 | 119.7 | 118.1 | 137.5 |
| 350 | | | 232.8 | | 235.2 | | | |
| 300 | | | | | | | | |
| LONG | -78.68 | -78.49 | -78.20 | -77.71 | -77.49 | -77.27 | -76.92 | -76.68 |
| LAT | 4.61 | 6.59 | 9.57 | 14.53 | 16.56 | 18.53 | 21.56 | 23.53 |
| QUAL | 33 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 4091 AT QUITOE, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 3708 | 3743 |
| 1000 | 0.094 | 0.092 |
| 950 | 0.114 | 0.107 |
| 900 | 0.130 | 0.123 |
| 850 | 0.149 | 0.148 |
| 800 | 0.182 | 0.183 |
| 750 | 0.223 | 0.225 |
| 700 | 0.276 | 0.281 |
| 650 | 0.353 | 0.348 |
| 600 | 0.445 | 0.425 |
| 550 | 0.590 | 0.608 |
| 500 | 0.983 | 0.927 |
| 450 | 1.538 | 1.437 |
| 400 | 2.329 | 2.184 |
| 350 | | 3.196 |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 295.7 | 323.4 |
| 900 | 303.7 | 307.2 |
| 850 | 296.6 | 289.2 |
| 800 | 274.0 | 271.2 |
| 750 | 251.3 | 253.2 |
| 700 | 229.0 | 235.1 |
| 650 | 207.4 | 217.1 |
| 600 | 185.8 | 199.1 |
| 550 | 159.6 | 145.8 |
| 500 | 112.3 | 120.4 |
| 450 | 117.3 | 118.9 |
| 400 | 124.6 | 120.1 |
| 350 | | 177.8 |
| 300 | | |

| | | |
|---|---|---|
| LONG | -76.43 | -76.16 |
| LAT | 25.55 | 27.51 |
| QUAL | 23 | 23 |

PASS 4091 AT OTTAWA, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 4053 | 4128 | 4203 | 4239 | 4314 | 4350 | 4425 | 4501 |
| 1000 | 0.135 | 0.145 | 0.148 | 0.139 | 0.137 | 0.142 | 0.126 | 0.168 |
| 950 | 0.153 | 0.162 | 0.167 | 0.161 | 0.161 | 0.168 | 0.142 | 0.190 |
| 900 | 0.174 | 0.184 | 0.189 | 0.184 | 0.185 | 0.194 | 0.160 | 0.217 |
| 850 | 0.201 | 0.213 | 0.217 | 0.212 | 0.213 | 0.223 | 0.180 | 0.250 |
| 800 | 0.233 | 0.249 | 0.252 | 0.245 | 0.247 | 0.255 | 0.206 | 0.287 |
| 750 | 0.274 | 0.292 | 0.297 | 0.284 | 0.294 | 0.304 | 0.237 | 0.329 |
| 700 | 0.334 | 0.345 | 0.354 | 0.338 | 0.354 | 0.367 | 0.278 | 0.378 |
| 650 | 0.409 | 0.422 | 0.430 | 0.413 | 0.431 | 0.447 | 0.332 | 0.442 |
| 600 | 0.529 | 0.541 | 0.544 | 0.533 | 0.536 | 0.554 | 0.401 | 0.521 |
| 550 | 0.694 | 0.705 | 0.694 | 0.695 | 0.672 | 0.689 | 0.500 | 0.616 |
| 500 | 0.949 | 0.964 | 0.945 | 0.925 | 0.903 | 0.910 | 0.621 | 0.766 |
| 450 | 1.345 | | 1.326 | 1.298 | 1.236 | 1.231 | 0.796 | 0.974 |
| 400 | 1.983 | | 1.853 | 1.838 | 1.717 | | | 1.247 |
| 350 | 3.004 | | 2.607 | 2.604 | 2.453 | | | 1.598 |
| 300 | | | | | | | | 1.955 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 388.3 | 410.1 | 396.2 | 360.6 | | | 425.3 | 380.6 |
| 900 | 362.8 | 364.5 | 371.8 | 357.8 | 345.3 | 341.8 | 414.2 | 366.5 |
| 850 | 346.2 | 342.6 | 346.6 | 353.2 | 334.4 | 329.5 | 395.3 | 362.8 |
| 800 | 320.3 | 321.5 | 323.6 | 337.6 | 316.6 | 317.3 | 369.1 | 362.0 |
| 750 | 274.7 | 302.9 | 302.0 | 309.7 | 286.2 | 294.4 | 328.2 | 362.7 |
| 700 | 250.4 | 274.1 | 271.4 | 267.1 | 260.0 | 270.5 | 295.5 | 326.6 |
| 650 | 226.1 | 220.2 | 232.0 | 229.0 | 238.0 | 248.9 | 273.3 | 305.2 |
| 600 | 200.3 | 201.2 | 211.8 | 207.5 | 221.3 | 230.7 | 252.9 | 288.5 |
| 550 | 175.5 | 180.5 | 191.2 | 186.0 | 202.7 | 210.2 | 238.1 | 271.8 |
| 500 | 155.9 | 150.4 | 159.3 | 164.4 | 171.9 | 176.5 | 223.2 | 240.3 |
| 450 | 138.6 | | 150.3 | 148.0 | 157.4 | 162.4 | 188.8 | 207.1 |
| 400 | 123.7 | | 148.7 | 143.5 | 145.8 | | | 206.0 |
| 350 | 142.4 | | 168.4 | 162.9 | 146.6 | | | 218.1 |
| 300 | | | | | | | | 463.6 |
| LONG | -74.41 | -74.00 | -73.58 | -73.09 | -72.59 | -72.02 | -71.40 | -70.73 |
| LAT | 38.12 | 40.06 | 42.01 | 44.00 | 45.93 | 47.91 | 49.83 | 51.80 |
| QUAL | 33 | 33 | 23 | 33 | 33 | 33 | 33 | 32 |

PASS 4091 AT OTTAWA, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 4536 | 4612 | 4647 | 4723 | 4758 | 4834 | 4908 |
| 1000 | 0.116 | 0.162 | 0.150 | 0.179 | 0.156 | 0.135 | 0.143 |
| 950 | 0.133 | 0.179 | 0.171 | 0.200 | 0.178 | 0.152 | 0.164 |
| 900 | 0.154 | 0.199 | 0.194 | 0.222 | 0.202 | 0.172 | 0.185 |
| 850 | 0.178 | 0.221 | 0.220 | 0.246 | 0.228 | 0.194 | 0.209 |
| 800 | 0.205 | 0.246 | 0.248 | 0.274 | 0.257 | 0.220 | 0.242 |
| 750 | 0.235 | 0.279 | 0.283 | 0.312 | 0.291 | 0.251 | 0.278 |
| 700 | 0.274 | 0.320 | 0.327 | 0.359 | 0.333 | 0.292 | 0.318 |
| 650 | 0.323 | 0.372 | 0.381 | 0.418 | 0.391 | 0.344 | 0.378 |
| 600 | 0.382 | 0.444 | 0.469 | 0.502 | 0.466 | 0.410 | 0.455 |
| 550 | 0.468 | 0.541 | 0.581 | 0.611 | 0.560 | 0.507 | 0.550 |
| 500 | 0.576 | 0.672 | 0.730 | 0.751 | 0.672 | 0.627 | 0.666 |
| 450 | 0.716 | 0.873 | 0.933 | 0.927 | 0.835 | 0.790 | 0.829 |
| 400 | 0.903 | 1.143 | 1.246 | 1.176 | 1.041 | 1.000 | 1.034 |
| 350 | 1.182 | 1.496 | 1.567 | 1.515 | 1.312 | 1.269 | |
| 300 | | 1.971 | | 1.970 | 1.666 | 1.628 | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 353.1 | 482.3 | | | | 404.6 | 416.1 |
| 900 | 345.4 | 472.4 | 396.1 | 480.7 | 405.7 | 406.3 | 401.3 |
| 850 | 348.2 | 455.0 | 399.8 | 451.5 | 408.3 | 400.5 | 380.3 |
| 800 | 346.9 | 431.0 | 379.0 | 422.7 | 395.5 | 391.6 | 359.0 |
| 750 | 340.7 | 387.2 | 352.0 | 395.0 | 374.2 | 344.8 | 345.0 |
| 700 | 319.1 | 345.0 | 321.9 | 367.2 | 349.1 | 315.3 | 327.4 |
| 650 | 293.1 | 304.7 | 292.2 | 286.6 | 298.7 | 292.4 | 288.5 |
| 600 | 266.7 | 274.2 | 266.5 | 275.6 | 278.3 | 270.5 | 266.6 |
| 550 | 255.4 | 248.0 | 240.8 | 264.5 | 269.4 | 252.0 | 259.1 |
| 500 | 244.1 | 221.9 | 215.5 | 248.4 | 259.8 | 233.5 | 251.0 |
| 450 | 227.8 | 195.6 | 192.6 | 226.4 | 239.0 | 221.0 | 236.8 |
| 400 | 204.4 | 187.3 | 197.8 | 209.5 | 223.1 | 211.6 | 221.2 |
| 350 | 166.6 | 186.7 | 243.8 | 196.1 | 215.6 | 207.6 | |
| 300 | | 251.9 | | 189.4 | 219.8 | 224.8 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -69.95 | -69.10 | -68.17 | -67.06 | -65.92 | -64.45 | -62.96 |
| LAT | 53.71 | 55.66 | 57.55 | 59.47 | 61.33 | 63.23 | 65.01 |
| QUAL | 33 | 32 | 33 | 33 | 33 | 32 | 33 |

PASS 4091 AT RESLUT, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 4904 | 4922 | 4940 | 5032 | 5050 | 5108 | 5124 | 5142 |
| 1000 | 0.139 | 0.165 | 0.146 | 0.183 | 0.160 | 0.171 | 0.178 | 0.177 |
| 950 | 0.157 | 0.185 | 0.167 | 0.210 | 0.182 | 0.195 | 0.198 | 0.204 |
| 900 | 0.179 | 0.208 | 0.191 | 0.241 | 0.208 | 0.221 | 0.222 | 0.230 |
| 850 | 0.205 | 0.235 | 0.221 | 0.274 | 0.237 | 0.249 | 0.248 | 0.259 |
| 800 | 0.236 | 0.269 | 0.257 | 0.309 | 0.270 | 0.282 | 0.280 | 0.292 |
| 750 | 0.274 | 0.308 | 0.300 | 0.352 | 0.311 | 0.324 | 0.317 | 0.330 |
| 700 | 0.319 | 0.353 | 0.353 | 0.405 | 0.363 | 0.374 | 0.361 | 0.380 |
| 650 | 0.369 | 0.419 | 0.416 | 0.466 | 0.424 | 0.431 | 0.424 | 0.437 |
| 600 | 0.444 | 0.514 | 0.488 | 0.546 | 0.494 | 0.533 | 0.515 | 0.502 |
| 550 | 0.544 | 0.630 | 0.586 | 0.673 | 0.611 | 0.659 | 0.625 | 0.579 |
| 500 | 0.663 | 0.777 | 0.733 | 0.827 | 0.765 | 0.811 | 0.763 | 0.729 |
| 450 | 0.817 | 0.959 | 0.918 | 1.014 | 0.960 | 0.994 | 0.938 | 0.912 |
| 400 | 1.007 | 1.199 | 1.165 | 1.240 | 1.206 | 1.225 | 1.168 | 1.159 |
| 350 | 1.254 | 1.502 | 1.462 | 1.538 | 1.532 | 1.525 | 1.448 | 1.471 |
| 300 | 1.576 | 1.851 | | 1.949 | | 1.897 | 1.763 | 1.920 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 361.1 | 416.6 | 372.5 | 370.8 | 371.6 | 385.8 | 440.1 | |
| 900 | 361.4 | 399.9 | 349.5 | 381.0 | 374.7 | 388.9 | 429.6 | 399.4 |
| 850 | 355.2 | 382.6 | 337.3 | 379.5 | 364.2 | 383.9 | 419.1 | 393.9 |
| 800 | 349.0 | 364.3 | 326.2 | 378.0 | 353.7 | 373.2 | 395.6 | 385.8 |
| 750 | 333.9 | 345.9 | 315.3 | 362.4 | 340.0 | 349.3 | 370.3 | 373.6 |
| 700 | 318.1 | 327.6 | 305.4 | 341.4 | 323.2 | 325.5 | 344.9 | 356.5 |
| 650 | 302.4 | 303.0 | 295.6 | 320.4 | 306.3 | 301.7 | 318.3 | 339.3 |
| 600 | 286.1 | 272.7 | 285.7 | 300.4 | 289.4 | 280.8 | 290.8 | 322.2 |
| 550 | 269.5 | 246.4 | 268.6 | 282.5 | 259.2 | 259.8 | 263.3 | 303.5 |
| 500 | 253.4 | 239.8 | 241.3 | 264.5 | 225.8 | 246.7 | 248.0 | 264.9 |
| 450 | 243.9 | 232.8 | 222.5 | 250.7 | 221.6 | 240.7 | 238.6 | 226.2 |
| 400 | 232.6 | 225.2 | 221.7 | 242.7 | 216.0 | 235.3 | 234.9 | 211.1 |
| 350 | 222.7 | 235.9 | 266.2 | 222.8 | 198.5 | 230.7 | 246.5 | 202.6 |
| 300 | 221.8 | 255.9 | | 227.9 | | 228.4 | 269.9 | 195.8 |
| LONG | -63.14 | -62.19 | -61.25 | -57.96 | -56.70 | -55.24 | -53.72 | -52.00 |
| LAT | 64.81 | 65.73 | 66.66 | 69.29 | 70.19 | 71.07 | 71.83 | 72.68 |
| QUAL | 32 | 33 | 33 | 33 | 33 | 32 | 32 | 32 |

PASS 4091 AT RESLUT, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 5200 | 5218 | 5236 | 5254 | 5312 | 5330 | 5346 | 5404 |
| 1000 | 0.139 | 0.166 | 0.168 | 0.146 | 0.171 | 0.144 | 0.138 | 0.148 |
| 950 | 0.162 | 0.185 | 0.186 | 0.167 | 0.194 | 0.163 | 0.157 | 0.171 |
| 900 | 0.185 | 0.206 | 0.209 | 0.190 | 0.219 | 0.184 | 0.176 | 0.194 |
| 850 | 0.213 | 0.233 | 0.236 | 0.215 | 0.249 | 0.211 | 0.201 | 0.218 |
| 800 | 0.246 | 0.265 | 0.266 | 0.244 | 0.285 | 0.242 | 0.231 | 0.246 |
| 750 | 0.285 | 0.303 | 0.303 | 0.279 | 0.325 | 0.280 | 0.267 | 0.281 |
| 700 | 0.329 | 0.348 | 0.353 | 0.321 | 0.377 | 0.324 | 0.309 | 0.322 |
| 650 | 0.379 | 0.399 | 0.414 | 0.367 | 0.439 | 0.374 | 0.356 | 0.369 |
| 600 | 0.456 | 0.476 | 0.489 | 0.442 | 0.511 | 0.442 | 0.422 | 0.421 |
| 550 | 0.552 | 0.570 | 0.586 | 0.542 | 0.592 | 0.536 | 0.514 | 0.517 |
| 500 | 0.666 | 0.701 | 0.703 | 0.661 | 0.718 | 0.651 | 0.630 | 0.633 |
| 450 | 0.835 | 0.864 | 0.856 | 0.823 | 0.886 | 0.811 | 0.779 | 0.772 |
| 400 | 1.044 | 1.086 | 1.045 | 1.024 | 1.105 | 1.004 | 0.961 | 0.933 |
| 350 | 1.304 | 1.314 | 1.304 | 1.287 | 1.372 | 1.270 | 1.189 | 1.119 |
| 300 | 1.627 | | 1.613 | 1.552 | 1.663 | 1.542 | | 1.308 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | 430.4 | 452.5 | 375.2 | 391.6 | 388.6 | 381.1 | |
| 900 | 344.1 | 424.8 | 425.2 | 383.7 | 391.3 | 380.0 | 386.1 | 394.7 |
| 850 | 344.7 | 407.0 | 402.2 | 379.1 | 382.1 | 369.6 | 371.3 | 388.8 |
| 800 | 345.4 | 389.2 | 380.9 | 368.8 | 366.0 | 359.2 | 356.5 | 381.0 |
| 750 | 334.1 | 369.1 | 359.9 | 352.0 | 350.0 | 346.3 | 342.7 | 366.2 |
| 700 | 321.2 | 348.7 | 339.5 | 335.2 | 338.2 | 331.3 | 329.3 | 351.4 |
| 650 | 308.3 | 327.3 | 319.2 | 318.4 | 327.1 | 316.4 | 315.8 | 336.6 |
| 600 | 289.6 | 294.8 | 299.9 | 296.8 | 315.9 | 295.9 | 294.0 | 321.7 |
| 550 | 270.5 | 262.3 | 283.2 | 273.7 | 304.8 | 270.0 | 263.7 | 298.4 |
| 500 | 251.5 | 249.1 | 267.0 | 250.6 | 274.0 | 246.8 | 245.1 | 274.8 |
| 450 | 238.6 | 236.1 | 253.7 | 237.7 | 235.6 | 238.0 | 242.3 | 264.1 |
| 400 | 227.7 | 238.9 | 242.9 | 227.5 | 235.2 | 229.2 | 239.6 | 272.2 |
| 350 | 225.8 | 327.3 | 239.2 | 250.5 | 251.6 | 227.7 | 237.1 | 306.8 |
| 300 | 231.9 | | 242.0 | 317.4 | 318.1 | 496.0 | | 407.2 |
| LONG | -50.29 | -47.89 | -45.48 | -43.08 | -40.00 | -36.57 | -33.52 | -29.80 |
| LAT | 73.54 | 74.33 | 75.11 | 75.90 | 76.60 | 77.27 | 77.86 | 78.48 |
| QUAL | 33 | 33 | 33 | 32 | 33 | 32 | 33 | 32 |

PASS 4091 AT RESLUT, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 5422 | 5440 | 5458 | 5516 | 5544 | 5608 | 5626 | 5644 |
| 1000 | 0.148 | 0.135 | 0.161 | 0.174 | 0.179 | 0.193 | 0.184 | 0.184 |
| 950 | 0.166 | 0.156 | 0.180 | 0.197 | 0.203 | 0.219 | 0.204 | 0.211 |
| 900 | 0.188 | 0.179 | 0.200 | 0.223 | 0.226 | 0.243 | 0.227 | 0.234 |
| 850 | 0.213 | 0.207 | 0.226 | 0.251 | 0.252 | 0.272 | 0.252 | 0.261 |
| 800 | 0.241 | 0.239 | 0.256 | 0.285 | 0.281 | 0.305 | 0.281 | 0.293 |
| 750 | 0.277 | 0.277 | 0.292 | 0.324 | 0.317 | 0.347 | 0.312 | 0.331 |
| 700 | 0.318 | 0.320 | 0.335 | 0.367 | 0.357 | 0.394 | 0.356 | 0.380 |
| 650 | 0.365 | 0.369 | 0.383 | 0.428 | 0.402 | 0.448 | 0.412 | 0.458 |
| 600 | 0.427 | 0.436 | 0.454 | 0.504 | 0.479 | 0.517 | 0.478 | 0.552 |
| 550 | 0.514 | 0.523 | 0.549 | 0.594 | 0.580 | 0.627 | 0.581 | 0.666 |
| 500 | 0.623 | 0.625 | 0.664 | 0.716 | 0.701 | 0.760 | 0.714 | 0.814 |
| 450 | 0.756 | 0.755 | 0.809 | 0.861 | 0.858 | 0.940 | 0.875 | 0.995 |
| 400 | 0.915 | 0.908 | 0.979 | 1.059 | 1.063 | 1.170 | 1.097 | 1.237 |
| 350 | 1.096 | 1.067 | 1.174 | 1.287 | 1.323 | 1.477 | 1.380 | 1.532 |
| 300 | 1.291 | | 1.382 | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 397.9 | 331.5 | 424.5 | 399.5 | | | 471.2 | |
| 900 | 391.8 | 344.5 | 420.0 | 399.1 | 437.4 | 430.0 | 467.0 | 436.6 |
| 850 | 385.6 | 343.6 | 403.3 | 397.9 | 434.4 | 416.7 | 454.7 | 420.3 |
| 800 | 377.7 | 342.7 | 386.3 | 384.7 | 421.2 | 402.3 | 432.8 | 394.6 |
| 750 | 364.6 | 336.3 | 368.6 | 371.5 | 398.1 | 385.0 | 411.0 | 368.7 |
| 700 | 351.5 | 327.7 | 350.8 | 358.3 | 375.1 | 367.7 | 377.1 | 342.9 |
| 650 | 338.4 | 320.1 | 333.0 | 338.1 | 352.0 | 350.4 | 339.7 | 317.4 |
| 600 | 313.3 | 306.9 | 309.3 | 315.4 | 326.1 | 328.4 | 302.2 | 291.8 |
| 550 | 274.2 | 291.1 | 282.9 | 292.8 | 299.5 | 293.5 | 280.9 | 268.0 |
| 500 | 264.7 | 278.0 | 265.1 | 276.8 | 272.9 | 258.6 | 262.2 | 253.9 |
| 450 | 266.6 | 287.8 | 264.5 | 260.7 | 251.7 | 240.3 | 243.6 | 242.3 |
| 400 | 276.4 | 297.7 | 274.2 | 259.0 | 235.6 | 228.3 | 227.8 | 236.2 |
| 350 | 297.5 | 340.7 | 292.4 | 273.8 | 237.7 | 225.3 | 208.6 | 234.6 |
| 300 | 345.3 | | 319.3 | | | | | |
| LONG | -25.06 | -20.31 | -15.56 | -9.82 | -0.72 | 7.09 | 12.93 | 18.77 |
| LAT | 78.95 | 79.42 | 79.89 | 80.09 | 80.36 | 80.43 | 80.25 | 80.07 |
| QUAL | 32 | 32 | 32 | 32 | 33 | 33 | 33 | 33 |

PASS 4097 AT QUITOE, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 115121 | 115156 | 115232 |
| 1000 | 0.060 | 0.068 | 0.060 |
| 950 | 0.069 | 0.076 | 0.068 |
| 900 | 0.078 | 0.083 | 0.075 |
| 850 | 0.089 | 0.092 | 0.085 |
| 800 | 0.102 | 0.107 | 0.095 |
| 750 | 0.119 | 0.132 | 0.107 |
| 700 | 0.140 | 0.164 | 0.121 |
| 650 | 0.165 | 0.203 | 0.142 |
| 600 | 0.200 | 0.250 | 0.167 |
| 550 | 0.245 | 0.307 | 0.198 |
| 500 | 0.298 | 0.372 | 0.250 |
| 450 | 0.440 | 0.444 | 0.315 |
| 400 | 0.680 | 0.645 | 0.446 |
| 350 | 1.101 | 0.950 | 0.650 |
| 300 | 1.859 | 1.519 | 1.043 |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 369.6 | 503.2 | 428.3 |
| 900 | 379.0 | 470.0 | 424.8 |
| 850 | 362.2 | 391.9 | 413.9 |
| 800 | 345.3 | 342.6 | 403.0 |
| 750 | 325.6 | 318.8 | 392.1 |
| 700 | 305.0 | 295.0 | 375.8 |
| 650 | 284.4 | 271.2 | 338.2 |
| 600 | 257.4 | 251.3 | 300.5 |
| 550 | 229.0 | 237.5 | 263.0 |
| 500 | 200.5 | 223.8 | 226.2 |
| 450 | 159.6 | 210.0 | 189.4 |
| 400 | 112.9 | 163.1 | 155.7 |
| 350 | 104.0 | 119.8 | 123.3 |
| 300 | 93.1 | 92.7 | 96.2 |
| LONG | -72.92 | -72.71 | -72.51 |
| LAT | 14.25 | 12.28 | 10.25 |
| QUAL | 23 | 23 | 23 |

PASS 4091 AT RESLUT, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 5702 | 5720 | 5738 | 5756 | 5814 | 5830 | 5848 |
| 1000 | 0.167 | 0.161 | 0.168 | 0.176 | 0.208 | 0.223 | 0.212 |
| 950 | 0.187 | 0.188 | 0.192 | 0.197 | 0.236 | 0.244 | 0.236 |
| 900 | 0.207 | 0.216 | 0.215 | 0.222 | 0.262 | 0.263 | 0.260 |
| 850 | 0.230 | 0.244 | 0.240 | 0.250 | 0.298 | 0.281 | 0.284 |
| 800 | 0.255 | 0.271 | 0.270 | 0.281 | 0.319 | 0.303 | 0.314 |
| 750 | 0.287 | 0.299 | 0.303 | 0.317 | 0.352 | 0.329 | 0.349 |
| 700 | 0.325 | 0.332 | 0.343 | 0.357 | 0.391 | 0.357 | 0.387 |
| 650 | 0.369 | 0.369 | 0.396 | 0.410 | 0.445 | 0.399 | 0.437 |
| 600 | 0.432 | 0.437 | 0.459 | 0.473 | 0.509 | 0.455 | 0.496 |
| 550 | 0.525 | 0.531 | 0.550 | 0.560 | 0.582 | 0.520 | 0.565 |
| 500 | 0.638 | 0.651 | 0.663 | 0.670 | 0.679 | 0.596 | 0.648 |
| 450 | 0.790 | 0.799 | 0.797 | 0.802 | 0.804 | 0.699 | 0.743 |
| 400 | 1.002 | 0.978 | 0.988 | 0.977 | 0.955 | 0.822 | |
| 350 | 1.256 | 1.203 | 1.223 | 1.193 | | 0.972 | |
| 300 | | | 1.537 | | | 1.168 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 900 | 469.3 | | 420.3 | 416.0 | 470.2 | 643.7 | 501.6 |
| 850 | 452.6 | 441.2 | 421.4 | 414.7 | 489.4 | 658.9 | 506.0 |
| 800 | 435.8 | 467.3 | 412.6 | 408.1 | 470.3 | 610.4 | 486.6 |
| 750 | 407.9 | 458.4 | 403.7 | 401.5 | 451.2 | 562.0 | 467.1 |
| 700 | 378.7 | 418.5 | 385.1 | 390.8 | 431.4 | 513.5 | 447.7 |
| 650 | 349.5 | 378.6 | 342.6 | 355.8 | 406.6 | 472.9 | 425.0 |
| 600 | 319.9 | 331.3 | 304.0 | 320.9 | 381.9 | 434.9 | 401.8 |
| 550 | 289.7 | 282.2 | 290.5 | 303.9 | 357.1 | 396.9 | 379.7 |
| 500 | 259.6 | 253.8 | 276.9 | 291.1 | 332.7 | 359.0 | 362.8 |
| 450 | 238.3 | 251.5 | 263.3 | 278.3 | 308.5 | 335.0 | 345.9 |
| 400 | 226.3 | 251.8 | 245.5 | 266.5 | 287.5 | 312.5 | |
| 350 | 268.8 | 261.4 | 231.1 | 261.5 | | 284.4 | |
| 300 | | | 242.6 | | | 247.5 | |
| LONG | 24.48 | 29.20 | 33.92 | 38.63 | 42.32 | 45.34 | 48.74 |
| LAT | 79.66 | 79.38 | 78.91 | 78.44 | 77.81 | 77.21 | 76.55 |
| QUAL | 32 | 32 | 32 | 32 | 32 | 33 | 33 |

PASS 4097 AT RESLUT, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 113110 | 113128 | 113144 | 113202 | 113220 | 113238 | 113256 | 113314 |
| 1000 | 0.133 | 0.162 | 0.160 | 0.147 | 0.152 | 0.144 | 0.135 | 0.122 |
| 950 | 0.153 | 0.177 | 0.180 | 0.167 | 0.169 | 0.161 | 0.151 | 0.136 |
| 900 | 0.174 | 0.198 | 0.204 | 0.188 | 0.191 | 0.182 | 0.171 | 0.154 |
| 850 | 0.201 | 0.224 | 0.232 | 0.211 | 0.218 | 0.206 | 0.194 | 0.175 |
| 800 | 0.231 | 0.255 | 0.264 | 0.238 | 0.248 | 0.234 | 0.223 | 0.199 |
| 750 | 0.267 | 0.291 | 0.302 | 0.268 | 0.284 | 0.266 | 0.257 | 0.226 |
| 700 | 0.310 | 0.333 | 0.344 | 0.313 | 0.323 | 0.303 | 0.296 | 0.264 |
| 650 | 0.358 | 0.403 | 0.403 | 0.366 | 0.367 | 0.353 | 0.340 | 0.313 |
| 600 | 0.430 | 0.489 | 0.484 | 0.431 | 0.443 | 0.426 | 0.404 | 0.372 |
| 550 | 0.527 | 0.593 | 0.581 | 0.536 | 0.541 | 0.514 | 0.492 | 0.454 |
| 500 | 0.646 | 0.721 | 0.710 | 0.667 | 0.658 | 0.630 | 0.599 | 0.560 |
| 450 | 0.817 | 0.873 | 0.882 | 0.847 | 0.799 | 0.798 | 0.740 | 0.692 |
| 400 | 1.059 | 1.079 | 1.112 | 1.088 | 0.991 | 1.007 | 0.907 | 0.877 |
| 350 | 1.325 | 1.333 | 1.436 | 1.439 | 1.235 | 1.314 | 1.147 | 1.107 |
| 300 | | | | | 1.539 | | 1.458 | 1.381 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 351.3 | 454.3 | 401.8 | | 391.4 | 392.3 | 394.5 | 409.9 |
| 900 | 359.3 | 425.0 | 392.1 | 413.8 | 387.4 | 393.9 | 381.8 | 395.8 |
| 850 | 354.8 | 396.3 | 382.2 | 406.3 | 382.8 | 391.4 | 369.1 | 380.1 |
| 800 | 350.2 | 371.9 | 367.7 | 386.5 | 372.9 | 376.4 | 357.8 | 363.7 |
| 750 | 339.6 | 347.5 | 353.2 | 365.0 | 356.5 | 358.2 | 346.7 | 347.2 |
| 700 | 320.2 | 323.2 | 338.7 | 336.4 | 340.1 | 340.1 | 335.6 | 325.9 |
| 650 | 300.7 | 302.4 | 318.9 | 307.9 | 323.8 | 316.3 | 324.5 | 301.9 |
| 600 | 280.6 | 281.7 | 295.2 | 279.5 | 306.8 | 291.8 | 302.7 | 278.0 |
| 550 | 260.3 | 264.5 | 271.5 | 254.5 | 289.6 | 265.4 | 271.9 | 260.0 |
| 500 | 239.9 | 257.8 | 250.1 | 229.5 | 272.5 | 241.8 | 247.3 | 244.5 |
| 450 | 221.7 | 250.9 | 230.6 | 209.1 | 255.3 | 223.8 | 240.8 | 230.2 |
| 400 | 209.4 | 243.2 | 210.3 | 193.3 | 237.7 | 206.2 | 234.3 | 219.7 |
| 350 | 227.5 | 245.4 | 236.2 | 208.1 | 230.8 | 226.9 | 215.9 | 223.8 |
| 300 | | | | | 241.3 | | 203.0 | 234.6 |
| LONG | -119.61 | -116.02 | -112.84 | -109.37 | -106.85 | -104.34 | -101.82 | -99.87 |
| LAT | 78.27 | 77.62 | 77.05 | 76.38 | 75.61 | 74.84 | 74.07 | 73.24 |
| QUAL | 33 | 33 | 32 | 32 | 33 | 33 | 33 | 33 |

PASS 4097 AT RESLUT, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 113332 | 113350 | 113406 | 113424 | 113442 | 113500 | 113518 | 113536 |
| 1000 | 0.119 | 0.145 | 0.117 | 0.122 | 0.125 | 0.132 | 0.135 | 0.136 |
| 950 | 0.137 | 0.161 | 0.131 | 0.138 | 0.142 | 0.149 | 0.156 | 0.155 |
| 900 | 0.156 | 0.182 | 0.148 | 0.153 | 0.159 | 0.171 | 0.177 | 0.175 |
| 850 | 0.178 | 0.207 | 0.168 | 0.177 | 0.183 | 0.196 | 0.199 | 0.199 |
| 800 | 0.204 | 0.237 | 0.192 | 0.206 | 0.210 | 0.224 | 0.226 | 0.225 |
| 750 | 0.232 | 0.271 | 0.222 | 0.241 | 0.242 | 0.256 | 0.258 | 0.258 |
| 700 | 0.269 | 0.310 | 0.257 | 0.283 | 0.281 | 0.298 | 0.293 | 0.296 |
| 650 | 0.312 | 0.355 | 0.298 | 0.330 | 0.325 | 0.346 | 0.341 | 0.341 |
| 600 | 0.360 | 0.424 | 0.344 | 0.391 | 0.373 | 0.406 | 0.404 | 0.406 |
| 550 | 0.438 | 0.506 | 0.419 | 0.472 | 0.453 | 0.491 | 0.482 | 0.485 |
| 500 | 0.544 | 0.616 | 0.525 | 0.573 | 0.562 | 0.592 | 0.588 | 0.603 |
| 450 | 0.670 | 0.750 | 0.655 | 0.703 | 0.692 | 0.732 | 0.715 | 0.754 |
| 400 | 0.851 | 0.921 | 0.819 | 0.858 | 0.875 | 0.917 | 0.881 | 0.973 |
| 350 | 1.073 | 1.145 | 1.018 | 1.078 | 1.123 | 1.172 | 1.110 | 1.300 |
| 300 | 1.365 | | | 1.369 | 1.470 | 1.510 | 1.411 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | 408.8 | 382.1 | 381.8 | 366.2 | 367.9 | | |
| 900 | 368.8 | 395.3 | 381.9 | 384.5 | 374.1 | 368.3 | 386.3 | 385.3 |
| 850 | 366.9 | 381.7 | 371.1 | 362.6 | 365.9 | 364.5 | 389.4 | 382.0 |
| 800 | 362.0 | 370.6 | 360.3 | 340.7 | 357.7 | 357.1 | 378.8 | 376.2 |
| 750 | 355.4 | 359.7 | 346.1 | 324.0 | 346.4 | 347.4 | 366.1 | 360.5 |
| 700 | 336.4 | 348.8 | 331.0 | 314.3 | 331.8 | 331.3 | 353.5 | 344.9 |
| 650 | 317.5 | 336.5 | 316.0 | 304.6 | 317.2 | 315.1 | 329.1 | 325.2 |
| 600 | 298.5 | 303.4 | 300.9 | 290.0 | 302.6 | 297.6 | 296.0 | 291.4 |
| 550 | 276.6 | 270.2 | 278.0 | 269.4 | 282.4 | 277.2 | 270.7 | 257.5 |
| 500 | 253.9 | 261.0 | 250.6 | 252.9 | 259.8 | 256.8 | 261.6 | 236.7 |
| 450 | 231.1 | 253.8 | 230.0 | 245.9 | 237.2 | 237.4 | 252.5 | 216.7 |
| 400 | 223.1 | 243.4 | 228.8 | 238.9 | 216.5 | 218.4 | 236.4 | 198.3 |
| 350 | 216.0 | 231.6 | 252.0 | 222.5 | 197.1 | 204.0 | 215.6 | 186.8 |
| 300 | 221.0 | | | 209.1 | 200.6 | 191.0 | 226.6 | |
| LONG | -98.08 | -96.29 | -94.86 | -93.55 | -92.24 | -90.93 | -89.94 | -88.96 |
| LAT | 72.39 | 71.54 | 70.77 | 69.88 | 68.98 | 68.09 | 67.17 | 66.24 |
| QUAL | 33 | 33 | 32 | 33 | 33 | 33 | 33 | 33 |

PASS 4097 AT RESLUT, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 113554 | 113612 | 113630 | 113646 | 113704 | 113722 | 113740 | 113758 |
| 1000 | 0.131 | 0.151 | 0.146 | 0.144 | 0.154 | 0.158 | 0.125 | 0.141 |
| 950 | 0.153 | 0.167 | 0.162 | 0.164 | 0.170 | 0.177 | 0.140 | 0.159 |
| 900 | 0.171 | 0.185 | 0.179 | 0.184 | 0.191 | 0.198 | 0.157 | 0.180 |
| 850 | 0.194 | 0.205 | 0.201 | 0.204 | 0.214 | 0.224 | 0.176 | 0.204 |
| 800 | 0.219 | 0.228 | 0.227 | 0.228 | 0.238 | 0.251 | 0.197 | 0.230 |
| 750 | 0.252 | 0.254 | 0.260 | 0.254 | 0.265 | 0.280 | 0.220 | 0.257 |
| 700 | 0.291 | 0.284 | 0.299 | 0.287 | 0.297 | 0.319 | 0.251 | 0.289 |
| 650 | 0.336 | 0.331 | 0.343 | 0.336 | 0.338 | 0.366 | 0.295 | 0.332 |
| 600 | 0.396 | 0.390 | 0.401 | 0.395 | 0.402 | 0.424 | 0.348 | 0.384 |
| 550 | 0.487 | 0.461 | 0.502 | 0.465 | 0.487 | 0.515 | 0.410 | 0.444 |
| 500 | 0.596 | 0.574 | 0.625 | 0.553 | 0.618 | 0.627 | 0.506 | 0.514 |
| 450 | 0.736 | 0.714 | 0.787 | 0.714 | 0.786 | 0.765 | 0.643 | 0.638 |
| 400 | 0.904 | 0.899 | 0.990 | 0.912 | 1.001 | 0.948 | 0.812 | 0.788 |
| 350 | 1.159 | 1.146 | 1.265 | 1.193 | 1.282 | 1.176 | 1.023 | 0.985 |
| 300 | 1.432 | 1.444 | 1.685 | 1.563 | 1.683 | 1.467 | 1.308 | 1.225 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | 478.0 | 433.4 | | 441.7 | 428.6 | 434.8 | 392.0 |
| 900 | 379.0 | 475.8 | 434.6 | 431.2 | 450.5 | 430.6 | 435.9 | 406.8 |
| 850 | 374.0 | 472.6 | 409.4 | 449.0 | 456.6 | 427.4 | 423.9 | 421.7 |
| 800 | 369.0 | 448.7 | 384.9 | 422.5 | 457.6 | 416.2 | 404.8 | 417.7 |
| 750 | 352.9 | 416.5 | 363.9 | 395.9 | 434.0 | 404.9 | 365.7 | 399.6 |
| 700 | 334.6 | 384.0 | 343.0 | 369.8 | 391.8 | 373.3 | 362.5 | 381.3 |
| 650 | 316.4 | 347.5 | 322.0 | 344.3 | 345.7 | 339.3 | 336.0 | 362.7 |
| 600 | 296.5 | 310.9 | 298.8 | 318.9 | 291.2 | 307.9 | 309.4 | 344.1 |
| 550 | 273.9 | 275.4 | 266.8 | 293.5 | 243.1 | 289.2 | 282.9 | 325.5 |
| 500 | 251.2 | 254.1 | 234.8 | 266.9 | 232.3 | 270.5 | 256.6 | 305.9 |
| 450 | 240.6 | 232.9 | 220.8 | 233.0 | 221.5 | 252.8 | 230.7 | 272.8 |
| 400 | 232.1 | 214.4 | 214.3 | 199.3 | 209.5 | 239.9 | 215.1 | 239.6 |
| 350 | 223.3 | 216.8 | 191.9 | 190.4 | 195.6 | 233.3 | 210.8 | 241.5 |
| 300 | 220.7 | 255.1 | 169.9 | 247.5 | 193.2 | 238.6 | 197.2 | 262.2 |
| LONG | -87.97 | -87.13 | -86.36 | -85.68 | -84.95 | -84.35 | -83.74 | -83.13 |
| LAT | 65.32 | 64.38 | 63.43 | 62.59 | 61.65 | 60.69 | 59.73 | 58.78 |
| QUAL | 33 | 32 | 32 | 32 | 33 | 33 | 33 | 32 |

PASS 4097 AT RESLUT, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X.0-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 113816 | 113834 | 113852 | 113908 | 113926 | 113944 |
| 1000 | 0.141 | 0.127 | 0.136 | 0.119 | 0.116 | 0.109 |
| 950 | 0.161 | 0.143 | 0.151 | 0.138 | 0.127 | 0.125 |
| 900 | 0.178 | 0.163 | 0.172 | 0.157 | 0.145 | 0.139 |
| 850 | 0.200 | 0.185 | 0.196 | 0.176 | 0.166 | 0.160 |
| 800 | 0.224 | 0.208 | 0.220 | 0.198 | 0.189 | 0.187 |
| 750 | 0.251 | 0.234 | 0.246 | 0.224 | 0.214 | 0.219 |
| 700 | 0.279 | 0.263 | 0.275 | 0.259 | 0.247 | 0.258 |
| 650 | 0.318 | 0.297 | 0.313 | 0.301 | 0.289 | 0.305 |
| 600 | 0.366 | 0.345 | 0.364 | 0.351 | 0.337 | 0.358 |
| 550 | 0.424 | 0.402 | 0.424 | 0.428 | 0.411 | 0.432 |
| 500 | 0.489 | 0.470 | 0.503 | 0.531 | 0.504 | 0.527 |
| 450 | 0.595 | 0.583 | 0.626 | 0.653 | 0.614 | 0.654 |
| 400 | 0.733 | 0.724 | 0.779 | 0.830 | 0.776 | 0.808 |
| 350 | 0.933 | 0.905 | 0.992 | 1.081 | 0.983 | 1.026 |
| 300 | 1.208 | 1.127 | 1.267 | 1.378 | 1.267 | 1.328 |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | | 392.9 | 405.6 | | 441.2 | |
| 900 | 430.7 | 392.5 | 409.6 | 395.1 | 400.1 | 371.2 |
| 850 | 438.6 | 404.1 | 414.4 | 407.2 | 378.9 | 355.3 |
| 800 | 445.0 | 417.8 | 434.8 | 388.4 | 371.1 | 339.4 |
| 750 | 422.2 | 431.6 | 426.1 | 369.6 | 363.4 | 323.5 |
| 700 | 399.4 | 395.5 | 392.2 | 344.0 | 342.5 | 312.0 |
| 650 | 377.9 | 359.3 | 364.5 | 318.1 | 315.0 | 301.4 |
| 600 | 356.7 | 336.7 | 338.3 | 292.3 | 287.5 | 290.8 |
| 550 | 335.6 | 314.1 | 312.2 | 271.4 | 271.8 | 267.8 |
| 500 | 314.4 | 291.6 | 284.4 | 252.1 | 256.8 | 239.6 |
| 450 | 277.1 | 264.4 | 251.8 | 232.8 | 241.7 | 232.4 |
| 400 | 235.3 | 236.9 | 221.6 | 217.9 | 224.7 | 223.2 |
| 350 | 208.8 | 228.4 | 212.9 | 206.7 | 207.7 | 209.8 |
| 300 | 236.4 | 223.4 | 225.0 | 273.4 | 211.0 | 243.2 |
| LONG | -82.62 | -82.13 | -81.64 | -81.24 | -80.83 | -80.43 |
| LAT | 57.81 | 56.83 | 55.86 | 55.00 | 54.02 | 53.05 |
| QUAL | 32 | 33 | 32 | 32 | 33 | 32 |

PASS 4103 AT SOLANT, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 230214 | 230250 | 230956 | 231049 | 231125 | 231237 | 231313 | 231406 |
| 1000 | 0.023 | 0.046 | 0.099 | 0.093 | 0.100 | 0.142 | 0.134 | 0.146 |
| 950 | 0.026 | 0.051 | 0.105 | 0.101 | 0.109 | 0.155 | 0.146 | 0.160 |
| 900 | 0.028 | 0.054 | 0.109 | 0.108 | 0.115 | 0.168 | 0.159 | 0.175 |
| 850 | 0.031 | 0.057 | 0.114 | 0.117 | 0.124 | 0.185 | 0.175 | 0.194 |
| 800 | 0.035 | 0.061 | 0.120 | 0.127 | 0.135 | 0.205 | 0.194 | 0.216 |
| 750 | 0.039 | 0.067 | 0.129 | 0.139 | 0.150 | 0.234 | 0.223 | 0.245 |
| 700 | 0.042 | 0.075 | 0.145 | 0.151 | 0.167 | 0.271 | 0.260 | 0.279 |
| 650 | 0.049 | 0.090 | 0.165 | 0.167 | 0.188 | 0.314 | 0.306 | 0.321 |
| 600 | 0.059 | 0.108 | 0.193 | 0.193 | 0.213 | 0.377 | 0.364 | 0.389 |
| 550 | 0.075 | 0.131 | 0.226 | 0.227 | 0.294 | 0.477 | 0.443 | 0.517 |
| 500 | 0.103 | 0.158 | 0.279 | 0.307 | 0.410 | 0.662 | 0.597 | 0.704 |
| 450 | 0.147 | 0.206 | 0.422 | 0.468 | 0.570 | 0.990 | 0.906 | 1.085 |
| 400 | 0.215 | 0.318 | 0.696 | 0.827 | 1.046 | 1.486 | 1.502 | 1.776 |
| 350 | 0.369 | 0.447 | 1.140 | 1.361 | 1.542 | | | 2.768 |
| 300 | 0.563 | | 1.667 | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 578.4 | | 1311.3 | 776.5 | 731.0 | 641.1 | 581.4 | 542.2 |
| 900 | 508.2 | 805.0 | 1121.6 | 672.9 | 724.1 | 564.1 | 535.4 | 502.3 |
| 850 | 493.7 | 757.2 | 966.0 | 624.5 | 638.3 | 491.5 | 478.2 | 463.0 |
| 800 | 471.3 | 660.1 | 810.5 | 578.3 | 550.3 | 422.4 | 423.6 | 423.8 |
| 750 | 440.5 | 515.3 | 661.5 | 537.8 | 474.5 | 390.1 | 378.7 | 393.0 |
| 700 | 409.8 | 346.5 | 524.0 | 497.3 | 418.8 | 357.7 | 333.9 | 362.2 |
| 650 | 350.1 | 273.4 | 386.5 | 440.0 | 363.1 | 325.4 | 298.0 | 325.8 |
| 600 | 265.3 | 256.4 | 321.1 | 346.0 | 305.4 | 257.0 | 266.3 | 226.3 |
| 550 | 200.6 | 236.1 | 271.7 | 252.4 | 204.3 | 188.5 | 222.8 | 166.7 |
| 500 | 163.6 | 215.8 | 203.7 | 164.7 | 141.9 | 139.5 | 149.1 | 144.9 |
| 450 | 136.2 | 180.9 | 111.0 | 110.7 | 118.5 | 122.2 | 103.7 | 97.2 |
| 400 | 116.1 | 133.3 | 101.8 | 89.2 | 107.0 | 135.3 | 119.6 | 106.9 |
| 350 | 105.8 | 160.8 | 113.5 | 124.2 | 166.6 | | | 134.3 |
| 300 | 139.3 | | 159.1 | | | | | |
| LONG | -79.20 | -77.70 | -68.76 | -68.19 | -67.84 | -67.20 | -66.91 | -66.51 |
| LAT | -63.98 | -62.07 | -38.68 | -35.72 | -33.71 | -29.67 | -27.65 | -24.67 |
| QUAL | 22 | 33 | 32 | 32 | 32 | 23 | 33 | 33 |

PASS 4103 AT QUITOE, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 232019 | 232052 | 232129 | 232250 | 232326 | 232401 | 232437 | 232512 |
| 1000 | 0.167 | 0.182 | 0.193 | 0.191 | 0.180 | 0.161 | 0.150 | 0.133 |
| 950 | 0.188 | 0.210 | 0.223 | 0.225 | 0.213 | 0.194 | 0.181 | 0.156 |
| 900 | 0.217 | 0.242 | 0.258 | 0.268 | 0.254 | 0.234 | 0.218 | 0.187 |
| 850 | 0.253 | 0.284 | 0.300 | 0.319 | 0.303 | 0.283 | 0.264 | 0.227 |
| 800 | 0.296 | 0.333 | 0.351 | 0.384 | 0.365 | 0.343 | 0.320 | 0.278 |
| 750 | 0.346 | 0.409 | 0.435 | 0.474 | 0.454 | 0.432 | 0.411 | 0.348 |
| 700 | 0.438 | 0.516 | 0.547 | 0.593 | 0.568 | 0.549 | 0.530 | 0.464 |
| 650 | 0.556 | 0.661 | 0.712 | 0.769 | 0.740 | 0.727 | 0.712 | 0.624 |
| 600 | 0.738 | 0.852 | 0.934 | 1.030 | 0.970 | 0.974 | 0.962 | 0.840 |
| 550 | 0.984 | 1.141 | 1.287 | 1.474 | 1.373 | 1.377 | 1.379 | 1.234 |
| 500 | 1.405 | 1.636 | 1.839 | 2.199 | 2.002 | 2.052 | 2.072 | 1.887 |
| 450 | 2.162 | 2.414 | 2.655 | 3.484 | 3.159 | 3.151 | 3.256 | 2.994 |
| 400 | 3.566 | 3.591 | 3.935 | 5.351 | 4.887 | 4.799 | 4.983 | 4.685 |
| 350 | 5.782 | 5.401 | 5.627 | | 6.635 | 6.517 | 6.766 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 383.4 | 342.0 | 346.8 | 298.6 | 288.7 | 264.8 | 266.6 | 286.0 |
| 900 | 339.1 | 321.2 | 331.3 | 287.6 | 282.6 | 266.5 | 261.4 | 269.0 |
| 850 | 315.6 | 299.1 | 303.4 | 270.3 | 266.2 | 254.8 | 245.9 | 250.4 |
| 800 | 294.3 | 276.9 | 275.5 | 252.2 | 248.5 | 235.9 | 230.1 | 229.6 |
| 750 | 272.9 | 250.1 | 244.9 | 233.2 | 229.2 | 216.8 | 209.3 | 207.7 |
| 700 | 237.1 | 220.9 | 214.3 | 213.0 | 209.7 | 198.3 | 188.2 | 183.5 |
| 650 | 201.3 | 201.1 | 193.9 | 189.6 | 189.4 | 183.1 | 174.5 | 166.3 |
| 600 | 182.0 | 188.5 | 176.1 | 159.2 | 169.0 | 161.3 | 156.2 | 154.5 |
| 550 | 163.9 | 155.9 | 148.9 | 134.3 | 149.0 | 136.7 | 131.9 | 123.5 |
| 500 | 130.3 | 134.5 | 138.6 | 116.1 | 118.6 | 118.6 | 116.0 | 115.6 |
| 450 | 104.1 | 127.7 | 133.7 | 109.5 | 109.9 | 114.2 | 110.4 | 103.0 |
| 400 | 102.8 | 123.3 | 128.9 | 127.0 | 125.9 | 131.3 | 130.6 | 128.0 |
| 350 | 112.5 | 139.3 | 189.5 | | 284.3 | 300.3 | 236.8 | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -64.28 | -64.11 | -63.92 | -63.49 | -63.30 | -63.10 | -62.91 | -62.71 |
| LAT | -3.67 | -1.81 | 0.27 | 4.84 | 6.86 | 8.84 | 10.86 | 12.84 |
| QUAL | 22 | 22 | 22 | 23 | 23 | 23 | 23 | 23 |

PASS 4103 AT QUITOE, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 232548 | 232623 | 232659 | 232734 |
| 1000 | 0.135 | 0.114 | 0.100 | 0.096 |
| 950 | 0.156 | 0.133 | 0.120 | 0.114 |
| 900 | 0.187 | 0.162 | 0.146 | 0.137 |
| 850 | 0.226 | 0.195 | 0.177 | 0.165 |
| 800 | 0.272 | 0.234 | 0.215 | 0.200 |
| 750 | 0.329 | 0.295 | 0.263 | 0.248 |
| 700 | 0.419 | 0.376 | 0.336 | 0.318 |
| 650 | 0.538 | 0.493 | 0.433 | 0.408 |
| 600 | 0.739 | 0.674 | 0.578 | 0.543 |
| 550 | 1.061 | 0.945 | 0.831 | 0.744 |
| 500 | 1.634 | 1.391 | 1.329 | 1.084 |
| 450 | 2.600 | 2.145 | 2.170 | 1.733 |
| 400 | | 3.438 | 3.468 | 2.864 |
| 350 | | | | 4.138 |
| 300 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | |
|---|---|---|---|---|
| 950 | 301.3 | 306.5 | 267.5 | 278.2 |
| 900 | 284.0 | 267.4 | 260.9 | 269.8 |
| 850 | 268.3 | 257.6 | 252.5 | 256.6 |
| 800 | 254.3 | 247.0 | 243.0 | 241.2 |
| 750 | 237.1 | 221.4 | 230.0 | 225.7 |
| 700 | 211.1 | 196.7 | 209.5 | 210.1 |
| 650 | 184.8 | 174.7 | 187.0 | 194.0 |
| 600 | 157.3 | 159.1 | 159.4 | 173.1 |
| 550 | 125.3 | 141.5 | 127.7 | 148.4 |
| 500 | 114.5 | 123.6 | 102.4 | 117.3 |
| 450 | 105.0 | 110.2 | 105.1 | 102.9 |
| 400 | | 110.4 | 110.4 | 110.2 |
| 350 | | | | 185.0 |
| 300 | | | | |

| | | | | |
|---|---|---|---|---|
| LONG | -62.50 | -62.29 | -62.07 | -61.84 |
| LAT | 14.87 | 16.84 | 18.86 | 20.83 |
| QUAL | 23 | 33 | 33 | 33 |

PASS 4104 AT FTMYRS, 63 726

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 232717 | 232752 | 232827 | 232903 | 233014 | 233049 | 233125 | 233143 |
| 1000 | 0.103 | 0.117 | 0.091 | 0.090 | 0.102 | 0.089 | 0.091 | 0.094 |
| 950 | 0.121 | 0.135 | 0.110 | 0.106 | 0.120 | 0.106 | 0.109 | 0.111 |
| 900 | 0.145 | 0.156 | 0.132 | 0.128 | 0.144 | 0.131 | 0.134 | 0.134 |
| 850 | 0.177 | 0.186 | 0.164 | 0.156 | 0.173 | 0.163 | 0.164 | 0.166 |
| 800 | 0.218 | 0.226 | 0.202 | 0.191 | 0.207 | 0.205 | 0.200 | 0.204 |
| 750 | 0.272 | 0.278 | 0.253 | 0.237 | 0.252 | 0.265 | 0.249 | 0.255 |
| 700 | 0.349 | 0.351 | 0.319 | 0.300 | 0.315 | 0.347 | 0.319 | 0.324 |
| 650 | 0.456 | 0.457 | 0.418 | 0.390 | 0.402 | 0.449 | 0.422 | 0.429 |
| 600 | 0.626 | 0.618 | 0.570 | 0.521 | 0.531 | 0.585 | 0.568 | 0.579 |
| 550 | 0.895 | 0.868 | 0.816 | 0.721 | 0.722 | 0.772 | 0.791 | 0.798 |
| 500 | 1.349 | 1.280 | 1.239 | 1.052 | 1.005 | 1.100 | 1.158 | 1.152 |
| 450 | 2.123 | 1.976 | 1.991 | 1.609 | 1.431 | 1.661 | 1.766 | 1.784 |
| 400 | 3.477 | 3.060 | 3.195 | 2.439 | 2.113 | 2.630 | 2.894 | 2.799 |
| 350 | | | | 3.692 | 3.156 | 4.097 | 4.449 | 4.270 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 285.2 | 343.9 | 277.0 | 279.1 | 284.3 | 263.6 | 257.3 | 281.4 |
| 900 | 264.2 | 312.6 | 254.3 | 258.3 | 278.9 | 234.7 | 247.1 | 253.2 |
| 850 | 245.3 | 270.2 | 234.0 | 252.3 | 274.3 | 224.0 | 246.7 | 239.9 |
| 800 | 234.4 | 250.3 | 231.7 | 237.6 | 265.1 | 205.8 | 240.8 | 233.1 |
| 750 | 211.6 | 230.0 | 222.1 | 223.0 | 240.9 | 191.0 | 216.6 | 215.6 |
| 700 | 196.7 | 200.6 | 197.5 | 203.0 | 216.5 | 189.5 | 191.7 | 196.1 |
| 650 | 171.2 | 176.3 | 176.2 | 182.8 | 188.2 | 190.6 | 170.9 | 171.6 |
| 600 | 149.0 | 160.7 | 150.5 | 163.5 | 172.8 | 187.8 | 161.3 | 168.8 |
| 550 | 132.2 | 137.7 | 131.0 | 144.4 | 158.6 | 166.9 | 143.6 | 147.1 |
| 500 | 117.0 | 121.7 | 111.2 | 124.5 | 146.3 | 125.7 | 126.6 | 125.4 |
| 450 | 105.0 | 113.3 | 102.1 | 120.0 | 134.1 | 112.7 | 109.4 | 110.0 |
| 400 | 115.3 | 123.0 | 111.1 | 120.4 | 129.0 | 110.6 | 101.6 | 110.6 |
| 350 | | | | 112.6 | 113.9 | 116.3 | 122.3 | 120.8 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -61.89 | -61.65 | -61.37 | -61.08 | -60.58 | -60.29 | -60.07 | -59.98 |
| LAT | 20.45 | 22.20 | 24.40 | 26.75 | 30.30 | 32.05 | 33.39 | 33.96 |
| QUAL | 22 | 13 | 13 | 13 | 22 | 32 | 33 | 13 |

PASS 4108 AT RESLUT, 63 727

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 64912 | 64930 | 64948 | 65006 | 65024 | 65042 | 65100 | 65116 |
| 1000 | 0.113 | 0.097 | 0.099 | 0.081 | 0.146 | 0.134 | 0.112 | 0.101 |
| 950 | 0.129 | 0.117 | 0.115 | 0.098 | 0.168 | 0.154 | 0.129 | 0.118 |
| 900 | 0.150 | 0.138 | 0.135 | 0.116 | 0.193 | 0.176 | 0.150 | 0.138 |
| 850 | 0.175 | 0.160 | 0.158 | 0.136 | 0.222 | 0.200 | 0.175 | 0.162 |
| 800 | 0.203 | 0.186 | 0.191 | 0.163 | 0.260 | 0.237 | 0.203 | 0.192 |
| 750 | 0.249 | 0.224 | 0.234 | 0.200 | 0.317 | 0.282 | 0.248 | 0.232 |
| 700 | 0.310 | 0.268 | 0.284 | 0.244 | 0.386 | 0.336 | 0.303 | 0.281 |
| 650 | 0.383 | 0.320 | 0.346 | 0.296 | 0.468 | 0.406 | 0.368 | 0.338 |
| 600 | 0.469 | 0.399 | 0.429 | 0.364 | 0.576 | 0.496 | 0.445 | 0.419 |
| 550 | 0.570 | 0.496 | 0.525 | 0.461 | 0.713 | 0.600 | 0.559 | 0.518 |
| 500 | 0.723 | 0.611 | 0.635 | 0.576 | 0.872 | 0.720 | 0.695 | 0.633 |
| 450 | 0.903 | 0.744 | 0.801 | 0.708 | 1.098 | 0.962 | 0.851 | 0.765 |
| 400 | 1.110 | 0.981 | 1.120 | 0.915 | 1.487 | 1.324 | 1.113 | 1.023 |
| 350 | 1.482 | 1.366 | 1.518 | 1.381 | 1.936 | 1.759 | 1.519 | 1.347 |
| 300 | 2.045 | 1.727 | 2.300 | 1.965 | 2.394 | | 2.063 | 1.755 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 351.5 | 290.4 | 316.4 | 281.6 | 357.5 | 350.1 | 330.7 | 322.0 |
| 900 | 329.4 | 295.7 | 300.5 | 277.3 | 336.7 | 340.7 | 318.3 | 309.2 |
| 850 | 307.4 | 297.7 | 284.7 | 272.9 | 315.9 | 331.3 | 305.9 | 296.5 |
| 800 | 285.3 | 296.6 | 275.2 | 267.6 | 298.8 | 314.4 | 293.5 | 284.5 |
| 750 | 274.3 | 283.1 | 266.7 | 261.3 | 286.1 | 297.5 | 282.3 | 274.7 |
| 700 | 266.9 | 269.6 | 258.2 | 255.0 | 273.5 | 280.6 | 271.1 | 264.8 |
| 650 | 259.6 | 256.1 | 249.5 | 248.7 | 260.9 | 266.0 | 260.0 | 254.9 |
| 600 | 252.2 | 246.2 | 240.4 | 240.2 | 248.5 | 252.9 | 248.8 | 247.2 |
| 550 | 244.5 | 236.7 | 231.3 | 228.0 | 236.2 | 239.7 | 237.7 | 239.7 |
| 500 | 231.8 | 227.3 | 222.2 | 215.8 | 224.0 | 226.6 | 226.6 | 232.3 |
| 450 | 219.2 | 217.8 | 206.8 | 203.5 | 209.5 | 204.0 | 215.5 | 224.8 |
| 400 | 206.5 | 204.5 | 176.5 | 183.4 | 190.2 | 177.2 | 191.3 | 206.2 |
| 350 | 211.7 | 187.6 | 146.1 | 138.9 | 228.0 | 186.0 | 171.3 | 187.2 |
| 300 | 226.9 | 243.4 | 291.0 | 200.0 | 305.2 | | 424.6 | 268.2 |
| LONG | -100.93 | -95.03 | -89.14 | -83.28 | -77.48 | -71.69 | -65.89 | -61.77 |
| LAT | 80.11 | 80.25 | 80.40 | 80.43 | 80.24 | 80.04 | 79.84 | 79.41 |
| QUAL | 22 | 32 | 32 | 32 | 32 | 22 | 32 | 22 |

PASS 4108 AT RESLUT, 63 727

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 65134 | 65152 | 65210 | 65228 | 65246 | 65304 | 65322 | 65338 |
| 1000 | 0.129 | 0.165 | 0.141 | 0.123 | 0.121 | 0.139 | 0.108 | 0.121 |
| 950 | 0.149 | 0.191 | 0.164 | 0.143 | 0.140 | 0.157 | 0.126 | 0.140 |
| 900 | 0.173 | 0.221 | 0.189 | 0.167 | 0.163 | 0.179 | 0.148 | 0.162 |
| 850 | 0.201 | 0.253 | 0.218 | 0.194 | 0.190 | 0.207 | 0.174 | 0.186 |
| 800 | 0.238 | 0.297 | 0.257 | 0.229 | 0.221 | 0.242 | 0.205 | 0.217 |
| 750 | 0.281 | 0.355 | 0.309 | 0.279 | 0.268 | 0.295 | 0.241 | 0.260 |
| 700 | 0.333 | 0.423 | 0.372 | 0.340 | 0.329 | 0.360 | 0.289 | 0.310 |
| 650 | 0.403 | 0.508 | 0.447 | 0.412 | 0.402 | 0.437 | 0.344 | 0.369 |
| 600 | 0.487 | 0.617 | 0.547 | 0.508 | 0.487 | 0.526 | 0.409 | 0.448 |
| 550 | 0.584 | 0.743 | 0.664 | 0.625 | 0.600 | 0.634 | 0.496 | 0.544 |
| 500 | 0.694 | 0.888 | 0.798 | 0.760 | 0.737 | 0.764 | 0.598 | 0.654 |
| 450 | 0.868 | 1.127 | 0.995 | 0.914 | 0.893 | 0.910 | 0.716 | 0.778 |
| 400 | 1.161 | 1.446 | 1.291 | 1.161 | 1.071 | 1.073 | 0.849 | 0.954 |
| 350 | 1.496 | 1.789 | 1.644 | 1.416 | 1.287 | 1.242 | 1.035 | 1.181 |
| 300 | | 2.157 | 2.042 | | | | 1.231 | 1.313 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 334.9 | 345.4 | 335.5 | 325.6 | 336.1 | 394.3 | 328.4 | 345.0 |
| 900 | 323.4 | 333.5 | 323.6 | 311.7 | 321.1 | 362.1 | 317.3 | 333.0 |
| 850 | 312.1 | 321.6 | 311.6 | 297.3 | 306.1 | 330.0 | 311.5 | 321.0 |
| 800 | 301.4 | 308.9 | 300.3 | 285.4 | 291.1 | 301.4 | 305.8 | 309.7 |
| 750 | 290.7 | 295.8 | 289.1 | 276.4 | 281.5 | 296.4 | 299.8 | 299.1 |
| 700 | 280.3 | 282.7 | 278.0 | 267.4 | 273.4 | 291.3 | 291.1 | 288.5 |
| 650 | 272.3 | 272.2 | 267.6 | 258.4 | 265.4 | 286.3 | 282.3 | 277.9 |
| 600 | 264.2 | 264.2 | 259.6 | 254.0 | 257.4 | 281.3 | 274.1 | 274.4 |
| 550 | 256.2 | 256.1 | 251.6 | 251.3 | 261.1 | 286.9 | 275.7 | 272.2 |
| 500 | 248.2 | 248.1 | 243.6 | 248.5 | 267.5 | 300.5 | 277.3 | 270.1 |
| 450 | 243.1 | 239.3 | 233.6 | 246.7 | 273.9 | 314.1 | 278.9 | 267.9 |
| 400 | 242.3 | 230.2 | 221.5 | 329.2 | 279.4 | 329.0 | 280.5 | 331.0 |
| 350 | 260.2 | 253.3 | 234.1 | 471.8 | 268.6 | 356.6 | 345.3 | 426.7 |
| 300 | | 282.7 | 284.8 | | | | 492.7 | 776.2 |
| LONG | -57.13 | -52.50 | -48.59 | -45.27 | -41.95 | -38.84 | -36.51 | -34.44 |
| LAT | 78.92 | 78.43 | 77.83 | 77.16 | 76.48 | 75.77 | 74.98 | 74.28 |
| QUAL | 22 | 23 | 23 | 22 | 22 | 22 | 22 | 22 |

PASS 4108 AT RESLUT, 63 727

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 65356 | 65414 | 65432 | 65450 | 65508 | 65526 | 65600 | 65618 |
| 1000 | 0.109 | 0.092 | 0.089 | 0.088 | 0.070 | 0.067 | 0.086 | 0.076 |
| 950 | 0.130 | 0.108 | 0.102 | 0.103 | 0.081 | 0.077 | 0.099 | 0.088 |
| 900 | 0.153 | 0.126 | 0.119 | 0.120 | 0.096 | 0.089 | 0.113 | 0.101 |
| 850 | 0.178 | 0.148 | 0.139 | 0.139 | 0.113 | 0.102 | 0.128 | 0.117 |
| 800 | 0.206 | 0.176 | 0.161 | 0.163 | 0.134 | 0.121 | 0.147 | 0.136 |
| 750 | 0.242 | 0.209 | 0.197 | 0.201 | 0.162 | 0.144 | 0.169 | 0.157 |
| 700 | 0.296 | 0.249 | 0.241 | 0.247 | 0.194 | 0.173 | 0.194 | 0.186 |
| 650 | 0.361 | 0.300 | 0.293 | 0.303 | 0.231 | 0.206 | 0.229 | 0.220 |
| 600 | 0.436 | 0.367 | 0.352 | 0.367 | 0.274 | 0.245 | 0.272 | 0.258 |
| 550 | 0.533 | 0.446 | 0.427 | 0.441 | 0.328 | 0.299 | 0.321 | 0.308 |
| 500 | 0.650 | 0.537 | 0.513 | 0.529 | 0.389 | 0.362 | 0.376 | 0.371 |
| 450 | 0.785 | 0.640 | 0.610 | 0.629 | 0.458 | 0.433 | 0.439 | 0.444 |
| 400 | 0.955 | 0.782 | 0.717 | 0.740 | 0.534 | 0.512 | 0.508 | 0.527 |
| 350 | 1.167 | 1.063 | 0.839 | 0.864 | 0.618 | 0.600 | 0.585 | 0.619 |
| 300 | | 1.343 | 0.975 | 1.047 | 0.741 | 0.807 | 0.748 | 0.722 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 296.7 | 318.5 | 344.4 | 317.2 | 331.2 | 326.1 | 371.7 | 354.5 |
| 900 | 303.6 | 310.0 | 326.4 | 304.5 | 316.7 | 320.0 | 371.4 | 345.4 |
| 850 | 299.8 | 301.5 | 308.4 | 291.9 | 302.3 | 313.9 | 371.0 | 339.5 |
| 800 | 296.1 | 291.9 | 290.5 | 283.5 | 291.9 | 307.1 | 353.3 | 333.6 |
| 750 | 290.5 | 282.1 | 285.8 | 284.1 | 291.0 | 300.1 | 334.0 | 327.3 |
| 700 | 282.2 | 272.3 | 281.5 | 284.8 | 290.0 | 293.2 | 317.3 | 315.2 |
| 650 | 273.9 | 265.2 | 277.1 | 285.4 | 289.0 | 286.2 | 313.6 | 303.0 |
| 600 | 265.6 | 260.2 | 272.8 | 286.0 | 289.0 | 279.5 | 309.9 | 290.8 |
| 550 | 262.5 | 255.2 | 282.8 | 286.7 | 291.5 | 273.4 | 306.1 | 284.2 |
| 500 | 262.0 | 250.3 | 294.6 | 289.2 | 294.1 | 267.3 | 302.4 | 280.2 |
| 450 | 261.5 | 245.3 | 306.4 | 291.7 | 296.6 | 261.1 | 298.6 | 276.2 |
| 400 | 283.0 | 257.8 | 318.1 | 294.2 | 299.1 | 255.0 | 294.9 | 272.3 |
| 350 | 319.6 | 332.6 | 328.8 | 301.0 | 301.6 | 248.9 | 291.2 | 268.3 |
| 300 | | 511.9 | 338.3 | 400.0 | 319.5 | 173.4 | 267.3 | 264.4 |
| LONG | -32.11 | -30.29 | -28.62 | -26.96 | -25.48 | -24.25 | -21.93 | -21.00 |
| LAT | 73.49 | 72.64 | 71.78 | 70.92 | 70.04 | 69.14 | 67.43 | 66.50 |
| QUAL | 22 | 22 | 32 | 22 | 32 | 33 | 32 | 33 |

PASS 4108 AT RESLUT, 63 727

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 65636 | 65654 | 65712 | 65730 | 65748 |
| 1000 | 0.071 | 0.058 | 0.062 | 0.056 | 0.047 |
| 950 | 0.084 | 0.070 | 0.074 | 0.068 | 0.057 |
| 900 | 0.098 | 0.083 | 0.089 | 0.081 | 0.069 |
| 850 | 0.116 | 0.099 | 0.105 | 0.094 | 0.081 |
| 800 | 0.136 | 0.116 | 0.124 | 0.112 | 0.095 |
| 750 | 0.162 | 0.139 | 0.146 | 0.133 | 0.114 |
| 700 | 0.196 | 0.169 | 0.179 | 0.157 | 0.135 |
| 650 | 0.236 | 0.203 | 0.219 | 0.189 | 0.160 |
| 600 | 0.285 | 0.242 | 0.264 | 0.230 | 0.196 |
| 550 | 0.352 | 0.293 | 0.322 | 0.279 | 0.240 |
| 500 | 0.431 | 0.365 | 0.401 | 0.335 | 0.291 |
| 450 | 0.522 | 0.451 | 0.494 | 0.398 | 0.349 |
| 400 | 0.625 | 0.550 | 0.601 | 0.469 | 0.414 |
| 350 | 0.776 | 0.661 | 0.722 | 0.570 | 0.487 |
| 300 | 1.010 | 0.786 | 0.933 | 0.795 | 0.673 |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | 310.8 | 275.3 | 284.9 | | |
| 900 | 304.7 | 277.2 | 283.2 | 283.4 | 270.0 |
| 850 | 299.0 | 278.5 | 282.3 | 293.0 | 282.5 |
| 800 | 293.3 | 279.8 | 281.4 | 287.5 | 287.9 |
| 750 | 285.0 | 277.6 | 280.5 | 281.1 | 281.3 |
| 700 | 275.1 | 272.5 | 272.0 | 274.8 | 274.7 |
| 650 | 265.1 | 267.4 | 263.3 | 270.0 | 268.2 |
| 600 | 256.8 | 262.3 | 254.6 | 266.3 | 263.4 |
| 550 | 254.2 | 257.2 | 247.4 | 262.6 | 258.9 |
| 500 | 251.6 | 252.1 | 243.1 | 258.9 | 254.3 |
| 450 | 249.0 | 247.1 | 238.8 | 255.2 | 249.7 |
| 400 | 246.4 | 242.0 | 234.6 | 251.5 | 245.1 |
| 350 | 243.9 | 237.0 | 230.3 | 240.2 | 240.5 |
| 300 | 241.6 | 231.9 | 247.5 | 198.6 | 204.5 |
| LONG | -20.06 | -19.13 | -18.34 | -17.61 | -16.88 |
| LAT | 65.58 | 64.65 | 63.71 | 62.76 | 61.81 |
| QUAL | 23 | 22 | 22 | 22 | 22 |

PASS 4117 AT QUITOE, 63 728

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 235739 | 235815 | 235850 | 235926 | 1 | 37 | 112 | 148 |
| 1000 | 0.153 | 0.179 | 0.188 | 0.186 | 0.197 | 0.191 | 0.173 | 0.159 |
| 950 | 0.169 | 0.203 | 0.209 | 0.213 | 0.223 | 0.217 | 0.200 | 0.186 |
| 900 | 0.186 | 0.227 | 0.236 | 0.243 | 0.256 | 0.251 | 0.235 | 0.218 |
| 850 | 0.209 | 0.253 | 0.267 | 0.278 | 0.296 | 0.291 | 0.276 | 0.258 |
| 800 | 0.236 | 0.285 | 0.303 | 0.321 | 0.341 | 0.341 | 0.325 | 0.308 |
| 750 | 0.273 | 0.327 | 0.349 | 0.380 | 0.410 | 0.413 | 0.398 | 0.382 |
| 700 | 0.320 | 0.387 | 0.409 | 0.454 | 0.497 | 0.502 | 0.493 | 0.490 |
| 650 | 0.400 | 0.462 | 0.486 | 0.555 | 0.617 | 0.635 | 0.627 | 0.637 |
| 600 | 0.505 | 0.569 | 0.602 | 0.683 | 0.791 | 0.815 | 0.811 | 0.830 |
| 550 | 0.637 | 0.747 | 0.764 | 0.880 | 1.048 | 1.107 | 1.099 | 1.127 |
| 500 | 0.829 | 1.054 | 1.080 | 1.213 | 1.488 | 1.602 | 1.583 | 1.668 |
| 450 | 1.378 | 1.606 | 1.720 | 1.863 | 2.236 | 2.444 | 2.438 | 2.684 |
| 400 | 2.668 | 2.554 | 2.664 | 2.943 | 3.557 | 3.935 | 4.003 | 4.310 |
| 350 | 4.696 | 4.157 | 4.177 | 4.769 | 5.654 | 6.157 | 6.451 | 6.860 |
| 300 | 7.045 | 6.918 | 6.735 | 7.704 | 8.808 | 9.147 | | 9.675 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 506.8 | 431.0 | 425.4 | 382.3 | 375.5 | 366.9 | 319.8 | 311.5 |
| 900 | 459.4 | 436.5 | 404.3 | 364.0 | 354.9 | 341.3 | 311.7 | 302.4 |
| 850 | 422.2 | 416.4 | 386.3 | 345.4 | 329.7 | 314.4 | 293.8 | 283.0 |
| 800 | 385.0 | 378.8 | 368.3 | 323.8 | 304.4 | 288.7 | 270.7 | 254.8 |
| 750 | 323.5 | 342.5 | 340.9 | 296.4 | 278.8 | 265.7 | 249.6 | 230.0 |
| 700 | 263.1 | 307.4 | 304.6 | 270.0 | 253.3 | 242.6 | 228.7 | 207.2 |
| 650 | 243.9 | 270.2 | 267.9 | 248.9 | 227.1 | 216.6 | 207.6 | 191.1 |
| 600 | 224.8 | 217.0 | 229.9 | 224.3 | 200.1 | 189.3 | 186.3 | 179.8 |
| 550 | 205.6 | 172.1 | 187.0 | 177.4 | 164.1 | 152.4 | 153.1 | 150.7 |
| 500 | 169.0 | 135.6 | 128.3 | 140.0 | 134.6 | 129.4 | 130.0 | 112.7 |
| 450 | 77.9 | 114.2 | 108.5 | 111.8 | 114.9 | 114.0 | 108.3 | 105.5 |
| 400 | 81.5 | 105.0 | 114.0 | 108.8 | 107.1 | 103.7 | 100.3 | 107.0 |
| 350 | 101.4 | 102.1 | 109.6 | 100.3 | 108.3 | 117.2 | 116.3 | 120.1 |
| 300 | 179.4 | 100.8 | 104.5 | 107.3 | 125.3 | 142.5 | | 213.7 |
| LONG | -75.65 | -75.46 | -75.27 | -75.09 | -74.90 | -74.71 | -74.52 | -74.33 |
| LAT | -3.76 | -1.73 | 0.24 | 2.26 | 4.24 | 6.26 | 8.24 | 10.26 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 4117 AT QUITOE, 63 728

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 223 | 259 | 334 | 410 | 445 | 521 | 556 | 614 |
| 1000 | 0.137 | 0.112 | 0.121 | 0.105 | 0.109 | 0.103 | 0.100 | 0.102 |
| 950 | 0.156 | 0.131 | 0.137 | 0.120 | 0.124 | 0.120 | 0.117 | 0.117 |
| 900 | 0.183 | 0.153 | 0.159 | 0.136 | 0.142 | 0.139 | 0.135 | 0.136 |
| 850 | 0.218 | 0.180 | 0.184 | 0.158 | 0.165 | 0.162 | 0.158 | 0.160 |
| 800 | 0.261 | 0.213 | 0.214 | 0.184 | 0.191 | 0.192 | 0.185 | 0.189 |
| 750 | 0.313 | 0.261 | 0.260 | 0.216 | 0.224 | 0.233 | 0.224 | 0.224 |
| 700 | 0.373 | 0.330 | 0.322 | 0.271 | 0.282 | 0.283 | 0.280 | 0.266 |
| 650 | 0.489 | 0.423 | 0.400 | 0.340 | 0.353 | 0.359 | 0.348 | 0.343 |
| 600 | 0.669 | 0.573 | 0.519 | 0.443 | 0.460 | 0.453 | 0.447 | 0.438 |
| 550 | 0.986 | 0.820 | 0.732 | 0.612 | 0.603 | 0.614 | 0.595 | 0.590 |
| 500 | 1.448 | 1.244 | 1.063 | 0.910 | 0.861 | 0.857 | 0.830 | 0.821 |
| 450 | 2.269 | 2.017 | 1.658 | 1.453 | 1.351 | 1.300 | 1.248 | 1.250 |
| 400 | 3.747 | 3.505 | 2.771 | 2.349 | 2.265 | 2.082 | 1.918 | 1.917 |
| 350 | 6.015 | 5.665 | 4.483 | 3.659 | 3.535 | 3.201 | 2.793 | 2.911 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 353.0 | 317.1 | 384.8 | 361.1 | 355.5 | 331.2 | 318.1 | 334.8 |
| 900 | 303.2 | 308.4 | 336.6 | 344.5 | 339.5 | 317.1 | 315.2 | 314.2 |
| 850 | 284.8 | 288.4 | 313.8 | 325.0 | 321.4 | 302.3 | 298.8 | 298.3 |
| 800 | 272.2 | 266.9 | 290.9 | 305.5 | 303.4 | 283.4 | 282.3 | 285.2 |
| 750 | 259.7 | 244.7 | 268.2 | 283.8 | 283.7 | 261.1 | 263.3 | 272.1 |
| 700 | 247.1 | 222.1 | 245.5 | 245.2 | 248.9 | 238.8 | 242.6 | 256.6 |
| 650 | 173.4 | 189.8 | 221.2 | 207.5 | 214.2 | 216.6 | 221.5 | 224.6 |
| 600 | 147.3 | 152.2 | 168.6 | 177.1 | 189.5 | 194.4 | 192.3 | 192.6 |
| 550 | 138.3 | 137.9 | 147.9 | 146.8 | 167.9 | 167.8 | 165.8 | 166.5 |
| 500 | 122.5 | 112.1 | 124.3 | 119.0 | 132.1 | 138.8 | 140.2 | 138.9 |
| 450 | 103.6 | 96.1 | 105.2 | 106.9 | 102.8 | 114.3 | 119.3 | 119.1 |
| 400 | 103.8 | 91.6 | 98.0 | 106.1 | 101.8 | 108.1 | 122.6 | 117.6 |
| 350 | 128.9 | 136.4 | 114.5 | 127.7 | 128.5 | 139.7 | 155.4 | 126.8 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -74.13 | -73.93 | -73.72 | -73.49 | -73.27 | -73.03 | -72.79 | -72.65 |
| LAT | 12.24 | 14.26 | 16.24 | 18.26 | 20.23 | 22.25 | 24.22 | 25.22 |
| QUAL | 33 | 33 | 23 | 33 | 23 | 23 | 33 | 13 |

PASS 4118 AT OTTAWA, 63 728

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 707 | 743 | 818 | 854 | 929 | 1005 | 1040 | 1116 |
| 1000 | 0.105 | 0.104 | 0.122 | 0.123 | 0.132 | 0.122 | 0.133 | 0.132 |
| 950 | 0.120 | 0.117 | 0.139 | 0.140 | 0.152 | 0.140 | 0.154 | 0.153 |
| 900 | 0.138 | 0.135 | 0.161 | 0.162 | 0.174 | 0.163 | 0.177 | 0.177 |
| 850 | 0.162 | 0.158 | 0.186 | 0.189 | 0.202 | 0.190 | 0.205 | 0.207 |
| 800 | 0.191 | 0.186 | 0.217 | 0.223 | 0.236 | 0.224 | 0.241 | 0.243 |
| 750 | 0.228 | 0.223 | 0.257 | 0.265 | 0.280 | 0.267 | 0.285 | 0.289 |
| 700 | 0.277 | 0.270 | 0.310 | 0.320 | 0.337 | 0.322 | 0.343 | 0.349 |
| 650 | 0.346 | 0.333 | 0.384 | 0.392 | 0.410 | 0.397 | 0.418 | 0.432 |
| 600 | 0.439 | 0.422 | 0.492 | 0.496 | 0.516 | 0.505 | 0.522 | 0.544 |
| 550 | 0.576 | 0.552 | 0.646 | 0.648 | 0.669 | 0.656 | 0.670 | 0.707 |
| 500 | 0.789 | 0.744 | 0.879 | 0.876 | 0.899 | 0.885 | 0.884 | 0.949 |
| 450 | 1.134 | 1.050 | 1.234 | 1.236 | 1.250 | 1.230 | 1.206 | 1.310 |
| 400 | 1.697 | 1.547 | 1.793 | 1.801 | 1.800 | 1.767 | 1.672 | 1.858 |
| 350 | 2.505 | 2.275 | 2.585 | 2.609 | 2.596 | 2.550 | 2.277 | 2.652 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 365.3 | 379.8 | 362.5 | 355.1 | 377.7 | 357.2 | 349.3 | 341.5 |
| 900 | 331.7 | 339.9 | 345.0 | 332.4 | 354.0 | 322.4 | 347.6 | 330.9 |
| 850 | 309.7 | 312.0 | 329.8 | 311.5 | 327.8 | 313.6 | 324.5 | 317.7 |
| 800 | 290.7 | 291.7 | 309.8 | 300.9 | 306.4 | 293.8 | 302.4 | 297.2 |
| 750 | 269.9 | 271.9 | 280.9 | 280.8 | 284.7 | 273.0 | 284.8 | 273.6 |
| 700 | 243.7 | 249.2 | 248.7 | 255.7 | 262.1 | 256.3 | 264.3 | 250.2 |
| 650 | 219.0 | 225.8 | 218.3 | 227.9 | 232.9 | 220.4 | 239.7 | 230.5 |
| 600 | 191.9 | 192.7 | 198.1 | 201.0 | 209.0 | 202.6 | 214.5 | 208.1 |
| 550 | 173.7 | 180.5 | 175.9 | 179.8 | 183.6 | 183.4 | 188.2 | 181.9 |
| 500 | 149.1 | 157.8 | 156.0 | 157.3 | 161.9 | 159.8 | 172.8 | 163.8 |
| 450 | 132.9 | 137.8 | 142.9 | 140.6 | 144.4 | 146.0 | 155.5 | 151.4 |
| 400 | 122.9 | 128.4 | 132.9 | 132.2 | 135.7 | 133.9 | 157.0 | 137.6 |
| 350 | 137.5 | 133.3 | 142.1 | 141.8 | 143.1 | 144.2 | 173.1 | 148.5 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -72.14 | -71.84 | -71.55 | -71.25 | -70.86 | -70.45 | -70.10 | -69.69 |
| LAT | 29.14 | 30.88 | 32.60 | 34.40 | 36.63 | 38.94 | 40.63 | 42.40 |
| QUAL | 13 | 12 | 12 | 13 | 13 | 13 | 13 | 23 |

PASS 4118 AT OTTAWA, 63 728

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1151 | 1244 | 1320 | 1355 | 1431 | 1506 | 1542 | 1617 |
| 1000 | 0.140 | 0.129 | 0.143 | 0.165 | 0.125 | 0.116 | 0.121 | 0.086 |
| 950 | 0.161 | 0.150 | 0.165 | 0.186 | 0.140 | 0.133 | 0.135 | 0.098 |
| 900 | 0.187 | 0.175 | 0.188 | 0.209 | 0.156 | 0.152 | 0.149 | 0.114 |
| 850 | 0.219 | 0.206 | 0.215 | 0.234 | 0.175 | 0.172 | 0.165 | 0.132 |
| 800 | 0.256 | 0.243 | 0.247 | 0.266 | 0.197 | 0.196 | 0.186 | 0.153 |
| 750 | 0.306 | 0.289 | 0.286 | 0.302 | 0.225 | 0.224 | 0.214 | 0.179 |
| 700 | 0.373 | 0.346 | 0.332 | 0.345 | 0.260 | 0.259 | 0.247 | 0.211 |
| 650 | 0.462 | 0.418 | 0.393 | 0.401 | 0.304 | 0.302 | 0.286 | 0.252 |
| 600 | 0.584 | 0.518 | 0.476 | 0.476 | 0.364 | 0.354 | 0.332 | 0.305 |
| 550 | 0.760 | 0.657 | 0.585 | 0.578 | 0.443 | 0.423 | 0.406 | 0.378 |
| 500 | 1.024 | 0.853 | 0.731 | 0.718 | 0.546 | 0.517 | 0.509 | 0.479 |
| 450 | 1.419 | 1.143 | 0.929 | 0.910 | 0.675 | 0.652 | 0.658 | 0.624 |
| 400 | 2.011 | | 1.216 | 1.176 | 0.864 | 0.844 | 0.858 | 0.834 |
| 350 | | | | 1.536 | 1.135 | 1.129 | 1.140 | 1.131 |
| 300 | | | | 2.021 | 1.526 | 1.521 | 1.544 | 1.526 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 341.4 | 324.5 | 374.7 | 427.4 | 455.5 | 365.4 | 489.2 | 348.4 |
| 900 | 328.2 | 315.6 | 384.2 | 446.4 | 447.0 | 384.5 | 490.1 | 335.8 |
| 850 | 315.7 | 306.9 | 362.4 | 416.1 | 425.1 | 392.3 | 440.9 | 340.1 |
| 800 | 295.7 | 294.1 | 350.4 | 392.5 | 398.5 | 376.7 | 393.5 | 331.7 |
| 750 | 270.4 | 282.8 | 339.3 | 384.2 | 362.7 | 355.9 | 360.4 | 312.1 |
| 700 | 245.3 | 273.9 | 313.2 | 350.3 | 329.7 | 337.4 | 347.4 | 290.9 |
| 650 | 224.5 | 242.4 | 279.2 | 309.6 | 302.6 | 322.1 | 337.5 | 272.3 |
| 600 | 204.1 | 224.2 | 255.9 | 276.1 | 264.2 | 294.7 | 298.5 | 246.3 |
| 550 | 181.5 | 203.2 | 237.9 | 245.6 | 248.3 | 265.3 | 228.0 | 223.6 |
| 500 | 160.8 | 181.1 | 220.2 | 222.5 | 234.7 | 233.9 | 208.5 | 205.9 |
| 450 | 148.7 | 165.0 | 199.6 | 206.1 | 222.1 | 209.9 | 193.9 | 185.9 |
| 400 | 140.7 | | 172.7 | 194.6 | 197.6 | 184.9 | 184.0 | 163.9 |
| 350 | | | | 184.0 | 177.5 | 168.6 | 171.4 | 172.6 |
| 300 | | | | 194.5 | 163.4 | 167.3 | 164.2 | 168.9 |
| LONG | -69.22 | -68.29 | -67.70 | -67.17 | -66.27 | -65.41 | -64.87 | -64.29 |
| LAT | 44.15 | 47.46 | 49.47 | 51.16 | 53.41 | 55.49 | 56.63 | 57.74 |
| QUAL | 23 | 23 | 23 | 32 | 33 | 32 | 22 | 32 |

PASS 4131 AT QUITOE, 63 729

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 3222 | 3257 | 3333 | 3408 | 3426 | 3502 | 3537 | 3613 |
| 1000 | 0.176 | 0.187 | 0.175 | 0.185 | | 0.191 | 0.192 | 0.200 |
| 950 | 0.203 | 0.212 | 0.201 | 0.206 | | 0.211 | 0.211 | 0.216 |
| 900 | 0.236 | 0.248 | 0.240 | 0.237 | | 0.236 | 0.232 | 0.236 |
| 850 | 0.261 | 0.294 | 0.288 | 0.276 | | 0.266 | 0.258 | 0.261 |
| 800 | 0.336 | 0.349 | 0.346 | 0.324 | | 0.329 | 0.298 | 0.294 |
| 750 | 0.425 | 0.462 | 0.440 | 0.404 | | 0.417 | 0.383 | 0.339 |
| 700 | 0.568 | 0.621 | 0.572 | 0.553 | | 0.530 | 0.497 | 0.397 |
| 650 | 0.781 | 0.647 | 0.773 | 0.758 | | 0.722 | 0.662 | 0.467 |
| 600 | 1.119 | 1.202 | 1.098 | 1.066 | | 1.021 | 0.895 | 0.643 |
| 550 | 1.719 | 1.810 | 1.668 | 1.627 | | 1.602 | 1.388 | 1.025 |
| 500 | 2.534 | 2.612 | 2.443 | 2.511 | | 2.612 | 2.290 | 1.751 |
| 450 | 3.446 | 3.476 | 3.375 | 3.710 | | 4.285 | 4.076 | 3.207 |
| 400 | 4.293 | 4.309 | 4.429 | 5.010 | | 6.543 | 6.999 | 5.980 |
| 350 | | 5.001 | 5.252 | 6.225 | | | 10.105 | 9.936 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 326.4 | 338.3 | 315.6 | 394.3 | | 462.7 | 514.1 | 581.0 |
| 900 | 296.9 | 297.7 | 279.3 | 338.5 | | 388.8 | 453.5 | 534.0 |
| 850 | 272.6 | 271.3 | 260.6 | 305.3 | | 316.4 | 338.3 | 475.3 |
| 800 | 248.3 | 245.0 | 242.0 | 272.1 | | 280.4 | 325.6 | 359.2 |
| 750 | 213.1 | 203.0 | 213.3 | 228.6 | | 244.5 | 269.6 | 322.5 |
| 700 | 167.3 | 166.6 | 181.9 | 168.6 | | 208.5 | 213.6 | 285.8 |
| 650 | 152.3 | 156.5 | 160.6 | 152.7 | | 170.0 | 174.2 | 249.0 |
| 600 | 128.3 | 126.3 | 132.0 | 132.6 | | 130.3 | 148.4 | 184.1 |
| 550 | 120.4 | 128.1 | 123.5 | 117.2 | | 106.8 | 104.6 | 104.3 |
| 500 | 145.2 | 155.1 | 142.9 | 119.2 | | 101.2 | 94.0 | 87.9 |
| 450 | 197.0 | 206.2 | 170.1 | 146.5 | | 106.2 | 86.5 | 78.9 |
| 400 | 302.0 | 273.3 | 242.7 | 197.9 | | 150.9 | 109.8 | 84.4 |
| 350 | | 478.8 | 367.0 | 334.3 | | | 164.0 | 127.3 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -87.88 | -87.68 | -87.48 | -87.29 | -87.19 | -87.00 | -86.82 | -86.63 |
| LAT | -12.69 | -10.72 | -8.69 | -6.72 | -5.71 | -3.68 | -1.71 | 0.32 |
| QUAL | 22 | 22 | 23 | 22 | 23 | 25 | 23 | 23 |

PASS 4131 AT QUITOE, 63 729

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 3648 | 3724 | 3759 | 3835 | 3910 | 3946 | 4021 | 4057 |
| 1000 | 0.198 | 0.188 | 0.179 | 0.165 | 0.171 | 0.165 | 0.133 | 0.138 |
| 950 | 0.219 | 0.211 | 0.200 | 0.183 | 0.194 | 0.182 | 0.152 | 0.155 |
| 900 | 0.243 | 0.237 | 0.222 | 0.204 | 0.221 | 0.208 | 0.176 | 0.181 |
| 850 | 0.272 | 0.268 | 0.251 | 0.230 | 0.249 | 0.235 | 0.205 | 0.210 |
| 800 | 0.309 | 0.311 | 0.295 | 0.267 | 0.285 | 0.272 | 0.238 | 0.244 |
| 750 | 0.355 | 0.366 | 0.351 | 0.313 | 0.328 | 0.323 | 0.286 | 0.296 |
| 700 | 0.417 | 0.434 | 0.422 | 0.378 | 0.378 | 0.387 | 0.345 | 0.359 |
| 650 | 0.505 | 0.526 | 0.515 | 0.469 | 0.469 | 0.474 | 0.431 | 0.444 |
| 600 | 0.648 | 0.638 | 0.664 | 0.605 | 0.598 | 0.596 | 0.550 | 0.564 |
| 550 | 0.924 | 0.855 | 0.888 | 0.825 | 0.822 | 0.790 | 0.746 | 0.749 |
| 500 | 1.507 | 1.249 | 1.305 | 1.227 | 1.200 | 1.103 | 1.076 | 1.049 |
| 450 | 2.736 | 2.136 | 2.091 | 1.983 | 1.936 | 1.739 | 1.716 | 1.659 |
| 400 | 4.974 | 3.605 | 3.381 | 3.182 | 3.137 | 2.824 | 2.699 | 2.753 |
| 350 | 8.443 | 6.012 | 5.186 | 4.885 | 4.975 | 4.419 | 4.252 | 4.469 |
| 300 | | 8.575 | | 6.876 | 7.152 | 6.398 | 6.231 | 6.650 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 476.1 | 427.6 | 466.3 | 470.5 | 391.3 | 454.0 | 349.7 | 378.9 |
| 900 | 449.6 | 408.2 | 418.8 | 421.8 | 389.4 | 396.6 | 336.6 | 345.1 |
| 850 | 408.2 | 354.7 | 357.3 | 371.0 | 379.1 | 356.9 | 319.5 | 316.7 |
| 800 | 374.0 | 332.9 | 330.1 | 335.6 | 354.1 | 325.9 | 301.9 | 290.8 |
| 750 | 339.8 | 311.1 | 302.8 | 300.2 | 326.3 | 301.3 | 276.1 | 272.7 |
| 700 | 296.1 | 287.3 | 270.2 | 262.9 | 298.4 | 276.7 | 250.3 | 254.7 |
| 650 | 242.7 | 254.4 | 227.0 | 223.8 | 244.8 | 243.5 | 218.6 | 231.5 |
| 600 | 187.0 | 221.5 | 192.9 | 186.8 | 186.6 | 200.9 | 187.8 | 198.5 |
| 550 | 129.7 | 169.1 | 163.2 | 152.8 | 152.4 | 171.8 | 159.9 | 166.8 |
| 500 | 89.9 | 107.6 | 116.3 | 113.7 | 116.3 | 129.0 | 120.9 | 137.0 |
| 450 | 85.7 | 93.5 | 106.3 | 104.0 | 105.3 | 104.1 | 109.6 | 103.0 |
| 400 | 85.5 | 96.3 | 105.8 | 107.9 | 102.2 | 106.7 | 109.1 | 100.1 |
| 350 | 111.4 | 111.2 | 134.5 | 131.2 | 123.7 | 122.6 | 117.9 | 110.9 |
| 300 | | 198.4 | | 220.9 | 178.0 | 172.8 | 157.7 | 155.0 |
| LONG | -86.44 | -86.25 | -86.07 | -85.87 | -85.67 | -85.48 | -85.28 | -85.07 |
| LAT | 2.29 | 4.31 | 6.28 | 8.31 | 10.28 | 12.31 | 14.28 | 16.31 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 4131 AT QUITOE, 63 729

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 4132 |
| 1000 | 0.130 |
| 950 | 0.146 |
| 900 | 0.166 |
| 850 | 0.190 |
| 800 | 0.222 |
| 750 | 0.273 |
| 700 | 0.337 |
| 650 | 0.425 |
| 600 | 0.551 |
| 550 | 0.706 |
| 500 | 1.075 |
| 450 | 1.674 |
| 400 | 2.668 |
| 350 | 4.251 |
| 300 | 6.313 |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 402.5 |
| 900 | 366.5 |
| 850 | 326.5 |
| 800 | 291.0 |
| 750 | 265.0 |
| 700 | 239.0 |
| 650 | 214.1 |
| 600 | 191.0 |
| 550 | 168.0 |
| 500 | 118.4 |
| 450 | 110.9 |
| 400 | 107.3 |
| 350 | 112.2 |
| 300 | 161.5 |

| | |
|---|---|
| LONG | -84.85 |
| LAT | 18.28 |
| QUAL | 23 |

PASS 4132 AT OTTAWA, 63 729

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 4631 | 4704 | 4739 | 4759 | 4835 | 4910 | 4946 | 5004 |
| 1000 | 0.157 | 0.161 | 0.171 | 0.170 | 0.176 | 0.183 | 0.163 | 0.162 |
| 950 | 0.176 | 0.181 | 0.190 | 0.191 | 0.195 | 0.202 | 0.183 | 0.181 |
| 900 | 0.199 | 0.204 | 0.213 | 0.214 | 0.218 | 0.227 | 0.209 | 0.205 |
| 850 | 0.227 | 0.232 | 0.240 | 0.243 | 0.248 | 0.259 | 0.240 | 0.235 |
| 800 | 0.263 | 0.266 | 0.279 | 0.280 | 0.287 | 0.304 | 0.279 | 0.274 |
| 750 | 0.307 | 0.305 | 0.326 | 0.326 | 0.334 | 0.360 | 0.328 | 0.319 |
| 700 | 0.364 | 0.364 | 0.387 | 0.385 | 0.393 | 0.427 | 0.391 | 0.382 |
| 650 | 0.432 | 0.465 | 0.469 | 0.455 | 0.470 | 0.521 | 0.465 | 0.457 |
| 600 | 0.511 | 0.591 | 0.566 | 0.536 | 0.560 | 0.633 | 0.572 | 0.545 |
| 550 | 0.717 | 0.762 | 0.680 | 0.707 | 0.664 | 0.763 | 0.779 | 0.682 |
| 500 | 0.989 | 1.030 | 0.883 | 0.943 | 0.879 | 0.962 | 1.048 | 0.971 |
| 450 | 1.384 | 1.364 | 1.284 | 1.288 | 1.248 | 1.336 | 1.427 | 1.346 |
| 400 | 1.947 | 1.965 | 1.836 | 1.767 | 1.818 | 1.867 | 1.961 | 1.860 |
| 350 | 2.865 | 2.678 | 2.625 | 2.502 | 2.641 | 2.580 | 2.755 | 2.561 |
| 300 | | | | | | 3.386 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 413.3 | 409.8 | 454.9 | 435.4 | 461.5 | 465.6 | 409.7 | 424.0 |
| 900 | 390.2 | 391.9 | 415.7 | 404.1 | 413.3 | 405.2 | 376.5 | 386.5 |
| 850 | 362.5 | 369.1 | 376.6 | 373.4 | 372.9 | 351.9 | 347.0 | 353.8 |
| 800 | 328.6 | 337.9 | 341.6 | 343.7 | 347.2 | 327.7 | 320.5 | 326.5 |
| 750 | 300.9 | 306.7 | 307.1 | 315.4 | 321.4 | 303.5 | 295.9 | 299.5 |
| 700 | 278.9 | 276.5 | 280.1 | 293.6 | 298.6 | 279.8 | 273.7 | 280.1 |
| 650 | 256.9 | 247.5 | 263.0 | 271.8 | 278.7 | 264.1 | 251.5 | 260.6 |
| 600 | 234.8 | 218.6 | 245.9 | 250.0 | 258.7 | 248.5 | 227.2 | 241.1 |
| 550 | 199.1 | 193.2 | 228.7 | 213.9 | 238.8 | 232.8 | 196.6 | 217.7 |
| 500 | 163.1 | 177.8 | 200.4 | 175.2 | 200.5 | 208.3 | 168.5 | 183.8 |
| 450 | 148.8 | 162.4 | 153.2 | 161.8 | 147.3 | 165.2 | 162.1 | 155.4 |
| 400 | 141.2 | 135.3 | 141.2 | 154.5 | 137.5 | 156.6 | 155.6 | 156.4 |
| 350 | 143.9 | 150.3 | 145.1 | 153.1 | 129.6 | 176.8 | 152.4 | 148.8 |
| 300 | | | | | | 244.0 | | |
| LONG | -82.53 | -82.21 | -81.81 | -81.59 | -81.14 | -80.68 | -80.16 | -79.89 |
| LAT | 35.04 | 36.87 | 38.82 | 39.93 | 41.93 | 43.86 | 45.85 | 46.84 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 33 | 33 | 33 |

PASS 4132 AT OTTAWA, 63 729

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 5039 | 5115 | 5129 | 5208 | 5226 | 5301 | 5334 | 5412 |
| 1000 | 0.160 | 0.164 | 0.153 | 0.146 | 0.161 | 0.150 | 0.158 | 0.167 |
| 950 | 0.179 | 0.184 | 0.172 | 0.165 | 0.180 | 0.169 | 0.181 | 0.187 |
| 900 | 0.202 | 0.209 | 0.196 | 0.188 | 0.204 | 0.193 | 0.203 | 0.209 |
| 850 | 0.232 | 0.238 | 0.225 | 0.216 | 0.235 | 0.220 | 0.234 | 0.236 |
| 800 | 0.271 | 0.279 | 0.263 | 0.251 | 0.273 | 0.257 | 0.272 | 0.274 |
| 750 | 0.317 | 0.327 | 0.309 | 0.292 | 0.319 | 0.302 | 0.320 | 0.319 |
| 700 | 0.377 | 0.390 | 0.370 | 0.339 | 0.381 | 0.356 | 0.380 | 0.375 |
| 650 | 0.448 | 0.469 | 0.443 | 0.413 | 0.455 | 0.429 | 0.452 | 0.449 |
| 600 | 0.530 | 0.561 | 0.528 | 0.519 | 0.541 | 0.515 | 0.534 | 0.538 |
| 550 | 0.696 | 0.668 | 0.638 | 0.650 | 0.640 | 0.616 | 0.670 | 0.640 |
| 500 | 0.936 | 0.930 | 0.882 | 0.841 | 0.869 | 0.792 | 0.898 | 0.756 |
| 450 | 1.265 | 1.274 | 1.202 | 1.128 | 1.185 | 1.106 | 1.183 | 1.013 |
| 400 | 1.718 | 1.753 | 1.661 | 1.516 | 1.620 | 1.514 | 1.576 | 1.353 |
| 350 | 2.430 | 2.406 | 2.349 | 2.156 | 2.203 | 2.047 | 2.131 | 1.826 |
| 300 | | | 3.161 | 3.058 | 2.886 | 2.942 | 2.778 | 2.317 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 430.3 | 410.7 | 408.4 | 401.4 | 425.4 | 392.5 | 378.0 | 425.3 |
| 900 | 385.0 | 380.3 | 374.2 | 368.4 | 378.6 | 370.9 | 372.8 | 398.4 |
| 850 | 352.4 | 350.4 | 343.9 | 351.8 | 346.9 | 349.2 | 348.3 | 372.9 |
| 800 | 326.9 | 323.1 | 317.3 | 333.5 | 324.5 | 328.3 | 323.8 | 348.8 |
| 750 | 302.6 | 295.8 | 292.6 | 308.8 | 302.2 | 307.5 | 302.6 | 324.6 |
| 700 | 283.3 | 277.9 | 278.0 | 284.1 | 286.8 | 287.4 | 286.6 | 302.7 |
| 650 | 264.0 | 262.1 | 263.4 | 261.3 | 271.3 | 270.3 | 270.6 | 288.5 |
| 600 | 244.7 | 246.2 | 248.7 | 239.5 | 255.9 | 253.2 | 254.6 | 274.2 |
| 550 | 216.9 | 230.4 | 231.3 | 217.7 | 240.4 | 236.1 | 233.7 | 260.0 |
| 500 | 186.4 | 197.7 | 191.5 | 197.3 | 209.2 | 212.3 | 207.1 | 245.7 |
| 450 | 165.7 | 164.4 | 158.7 | 178.4 | 174.9 | 180.5 | 181.6 | 208.1 |
| 400 | 155.4 | 157.9 | 151.2 | 158.3 | 164.4 | 153.4 | 172.1 | 175.5 |
| 350 | 152.9 | 170.3 | 179.7 | 134.5 | 191.6 | 133.2 | 229.0 | 243.9 |
| 300 | | | 287.7 | 449.2 | 371.7 | 1067.0 | 388.5 | 367.5 |
| LONG | -79.30 | -78.64 | -78.36 | -77.55 | -77.12 | -76.28 | -75.32 | -74.13 |
| LAT | 48.76 | 50.73 | 51.49 | 53.61 | 54.59 | 56.48 | 58.25 | 60.29 |
| QUAL | 23 | 23 | 23 | 23 | 32 | 32 | 32 | 22 |

PASS 4132 AT OTTAWA, 63 729

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 5447 | 5541 |
| 1000 | 0.158 | 0.160 |
| 950 | 0.181 | 0.180 |
| 900 | 0.208 | 0.202 |
| 850 | 0.242 | 0.226 |
| 800 | 0.287 | 0.257 |
| 750 | 0.341 | 0.292 |
| 700 | 0.403 | 0.337 |
| 650 | 0.484 | 0.398 |
| 600 | 0.581 | 0.470 |
| 550 | 0.690 | 0.553 |
| 500 | 0.832 | 0.648 |
| 450 | 1.049 | 0.754 |
| 400 | 1.329 | 1.032 |
| 350 | 1.621 | 1.471 |
| 300 | | 2.041 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 361.4 | 417.7 |
| 900 | 334.5 | 414.8 |
| 850 | 314.9 | 402.2 |
| 800 | 306.9 | 377.1 |
| 750 | 298.9 | 352.1 |
| 700 | 290.9 | 332.0 |
| 650 | 283.3 | 317.2 |
| 600 | 275.7 | 302.4 |
| 550 | 268.1 | 287.6 |
| 500 | 254.5 | 272.8 |
| 450 | 227.1 | 258.0 |
| 400 | 317.9 | 205.5 |
| 350 | 645.5 | 148.4 |
| 300 | | 171.1 |
| LONG | -72.86 | -70.51 |
| LAT | 62.15 | 64.98 |
| QUAL | 32 | 33 |

PASS 4132 AT RESLUT, 63 729

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 5318 | 5336 | 5356 | 5412 | 5430 | 5448 | 5504 | 5522 |
| 1000 | 0.117 | 0.131 | 0.128 | 0.160 | 0.157 | 0.157 | 0.152 | 0.174 |
| 950 | 0.132 | 0.155 | 0.145 | 0.179 | 0.175 | 0.178 | 0.165 | 0.194 |
| 900 | 0.151 | 0.178 | 0.165 | 0.200 | 0.196 | 0.205 | 0.184 | 0.215 |
| 850 | 0.174 | 0.205 | 0.189 | 0.225 | 0.221 | 0.233 | 0.208 | 0.240 |
| 800 | 0.201 | 0.239 | 0.218 | 0.255 | 0.255 | 0.269 | 0.243 | 0.272 |
| 750 | 0.236 | 0.281 | 0.255 | 0.292 | 0.296 | 0.311 | 0.286 | 0.312 |
| 700 | 0.277 | 0.336 | 0.301 | 0.337 | 0.346 | 0.362 | 0.335 | 0.359 |
| 650 | 0.324 | 0.405 | 0.356 | 0.389 | 0.406 | 0.428 | 0.389 | 0.420 |
| 600 | 0.398 | 0.508 | 0.434 | 0.466 | 0.490 | 0.517 | 0.478 | 0.517 |
| 550 | 0.506 | 0.641 | 0.547 | 0.564 | 0.592 | 0.627 | 0.600 | 0.634 |
| 500 | 0.654 | 0.847 | 0.690 | 0.714 | 0.754 | 0.783 | 0.751 | 0.793 |
| 450 | 0.844 | 1.131 | 0.893 | 0.919 | 0.964 | 0.992 | 0.936 | 0.996 |
| 400 | 1.176 | 1.530 | 1.179 | 1.204 | 1.264 | 1.301 | 1.186 | 1.265 |
| 350 | 1.643 | 2.078 | 1.586 | 1.568 | 1.707 | 1.707 | 1.508 | 1.620 |
| 300 | 2.172 | 2.742 | 2.176 | 2.036 | 2.270 | 2.184 | 1.928 | 2.074 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 386.3 | 335.3 | 382.7 | 444.3 | 448.7 | 383.9 | 498.2 | 495.5 |
| 900 | 366.0 | 344.8 | 371.5 | 426.7 | 414.0 | 367.4 | 437.7 | 464.6 |
| 850 | 339.4 | 335.0 | 354.9 | 405.8 | 381.0 | 357.1 | 379.5 | 405.8 |
| 800 | 319.9 | 317.0 | 330.2 | 383.8 | 349.5 | 350.2 | 339.2 | 375.1 |
| 750 | 312.4 | 297.4 | 309.2 | 361.0 | 327.5 | 343.4 | 309.7 | 352.4 |
| 700 | 305.0 | 271.1 | 291.7 | 337.4 | 311.4 | 313.7 | 295.6 | 329.8 |
| 650 | 297.5 | 244.0 | 274.2 | 313.7 | 293.8 | 274.5 | 281.6 | 305.1 |
| 600 | 221.2 | 223.3 | 254.0 | 279.3 | 265.7 | 262.3 | 259.6 | 273.9 |
| 550 | 202.3 | 202.6 | 231.1 | 243.6 | 237.8 | 250.1 | 235.7 | 242.8 |
| 500 | 189.1 | 184.4 | 209.1 | 218.6 | 218.6 | 226.5 | 224.5 | 227.1 |
| 450 | 177.5 | 172.2 | 191.1 | 197.2 | 199.1 | 201.2 | 218.7 | 215.7 |
| 400 | 153.2 | 165.2 | 177.9 | 191.6 | 177.7 | 188.8 | 214.1 | 209.7 |
| 350 | 165.4 | 172.4 | 164.3 | 190.7 | 171.1 | 192.8 | 208.2 | 202.6 |
| 300 | 197.0 | 201.7 | 172.2 | 206.7 | 195.7 | 213.7 | 211.9 | 219.0 |
| LONG | -75.42 | -74.94 | -74.41 | -73.92 | -73.35 | -72.78 | -72.29 | -71.81 |
| LAT | 58.04 | 58.88 | 59.81 | 60.58 | 61.45 | 62.32 | 63.02 | 63.56 |
| QUAL | 23 | 23 | 23 | 23 | 21 | 23 | 23 | 23 |

PASS 4132 AT RESLUT, 63 729

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 5540 |
| 1000 | 0.152 |
| 950 | 0.176 |
| 900 | 0.198 |
| 850 | 0.221 |
| 800 | 0.248 |
| 750 | 0.282 |
| 700 | 0.323 |
| 650 | 0.371 |
| 600 | 0.427 |
| 550 | 0.510 |
| 500 | 0.615 |
| 450 | 0.782 |
| 400 | 1.031 |
| 350 | 1.371 |
| 300 | 1.789 |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 400.2 |
| 900 | 430.0 |
| 850 | 422.7 |
| 800 | 408.0 |
| 750 | 392.2 |
| 700 | 376.2 |
| 650 | 346.4 |
| 600 | 309.7 |
| 550 | 279.0 |
| 500 | 248.3 |
| 450 | 210.3 |
| 400 | 181.8 |
| 350 | 183.3 |
| 300 | 195.6 |

| | |
|---|---|
| LONG | -71.33 |
| LAT | 64.10 |
| QUAL | 33 |

PASS 4138 AT OTTAWA, 63 729

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 114516 | 114552 | 114609 | 114645 | 114703 | 114738 | 114813 | 114832 |
| 1000 | 0.093 | 0.077 | 0.079 | 0.072 | 0.076 | 0.081 | 0.081 | 0.078 |
| 950 | 0.106 | 0.088 | 0.090 | 0.083 | 0.087 | 0.092 | 0.092 | 0.088 |
| 900 | 0.118 | 0.100 | 0.103 | 0.094 | 0.099 | 0.105 | 0.104 | 0.100 |
| 850 | 0.133 | 0.114 | 0.118 | 0.107 | 0.112 | 0.120 | 0.118 | 0.113 |
| 800 | 0.152 | 0.131 | 0.135 | 0.124 | 0.129 | 0.138 | 0.136 | 0.130 |
| 750 | 0.175 | 0.153 | 0.156 | 0.143 | 0.148 | 0.160 | 0.157 | 0.150 |
| 700 | 0.201 | 0.177 | 0.180 | 0.166 | 0.171 | 0.186 | 0.182 | 0.174 |
| 650 | 0.232 | 0.206 | 0.208 | 0.196 | 0.199 | 0.219 | 0.213 | 0.202 |
| 600 | 0.266 | 0.247 | 0.242 | 0.230 | 0.232 | 0.257 | 0.248 | 0.235 |
| 550 | 0.311 | 0.296 | 0.282 | 0.270 | 0.281 | 0.311 | 0.298 | 0.292 |
| 500 | 0.397 | 0.352 | 0.373 | 0.345 | 0.360 | 0.404 | 0.381 | 0.369 |
| 450 | 0.506 | 0.415 | 0.501 | 0.443 | 0.458 | 0.524 | 0.491 | 0.473 |
| 400 | 0.635 | 0.545 | 0.662 | 0.601 | 0.618 | 0.685 | 0.660 | 0.634 |
| 350 | 0.786 | 0.782 | 0.860 | 0.807 | 0.825 | 0.924 | 0.875 | 0.837 |
| 300 | 1.039 | 1.080 | 1.129 | 1.120 | 1.145 | 1.216 | 1.200 | 1.143 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 399.7 | 367.0 | 377.7 | 355.5 | 382.6 | 398.2 | 394.4 | 390.8 |
| 900 | 404.1 | 363.2 | 372.5 | 359.7 | 379.0 | 382.1 | 382.6 | 383.9 |
| 850 | 394.3 | 359.4 | 367.2 | 363.8 | 375.4 | 365.9 | 371.0 | 375.1 |
| 800 | 379.1 | 349.6 | 361.5 | 348.6 | 363.6 | 351.1 | 360.1 | 361.6 |
| 750 | 363.9 | 333.9 | 354.0 | 333.3 | 349.7 | 338.1 | 349.3 | 348.1 |
| 700 | 344.1 | 318.3 | 346.5 | 317.4 | 331.8 | 325.1 | 336.1 | 327.6 |
| 650 | 324.0 | 302.7 | 324.0 | 300.7 | 307.5 | 299.0 | 310.8 | 304.2 |
| 600 | 303.9 | 287.4 | 286.8 | 283.9 | 283.2 | 269.6 | 285.6 | 280.8 |
| 550 | 284.3 | 272.1 | 249.6 | 267.1 | 255.9 | 243.4 | 255.8 | 251.1 |
| 500 | 267.5 | 256.8 | 235.0 | 225.1 | 224.8 | 223.8 | 218.3 | 220.2 |
| 450 | 250.6 | 241.5 | 222.1 | 183.6 | 193.7 | 204.3 | 188.2 | 195.3 |
| 400 | 233.8 | 217.8 | 209.3 | 175.1 | 180.1 | 190.7 | 180.7 | 185.5 |
| 350 | 217.0 | 184.6 | 196.9 | 166.5 | 167.9 | 192.0 | 173.2 | 175.7 |
| 300 | 210.1 | 158.8 | 188.0 | 146.7 | 142.0 | 196.7 | 152.7 | 153.5 |
| LONG | -89.45 | -88.54 | -88.15 | -87.40 | -87.04 | -86.42 | -85.83 | -85.55 |
| LAT | 56.38 | 54.43 | 53.51 | 51.55 | 50.57 | 48.65 | 46.72 | 45.67 |
| QUAL | 33 | 33 | 33 | 13 | 13 | 23 | 23 | 13 |

PASS 4138 AT OTTAWA, 63 729

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 114907 | 114943 | 115018 | 115053 | 115129 | 115146 | 115222 | 115257 |
| 1000 | 0.074 | 0.076 | 0.083 | 0.086 | 0.089 | 0.092 | 0.084 | 0.088 |
| 950 | 0.084 | 0.085 | 0.094 | 0.097 | 0.099 | 0.102 | 0.095 | 0.098 |
| 900 | 0.096 | 0.097 | 0.107 | 0.110 | 0.112 | 0.115 | 0.108 | 0.111 |
| 850 | 0.109 | 0.111 | 0.123 | 0.125 | 0.127 | 0.132 | 0.123 | 0.127 |
| 800 | 0.126 | 0.129 | 0.141 | 0.143 | 0.145 | 0.151 | 0.142 | 0.147 |
| 750 | 0.147 | 0.150 | 0.165 | 0.167 | 0.166 | 0.176 | 0.166 | 0.174 |
| 700 | 0.171 | 0.175 | 0.193 | 0.195 | 0.193 | 0.207 | 0.194 | 0.205 |
| 650 | 0.201 | 0.207 | 0.227 | 0.228 | 0.225 | 0.244 | 0.228 | 0.244 |
| 600 | 0.238 | 0.243 | 0.274 | 0.268 | 0.268 | 0.294 | 0.268 | 0.293 |
| 550 | 0.280 | 0.304 | 0.331 | 0.343 | 0.333 | 0.357 | 0.350 | 0.351 |
| 500 | 0.381 | 0.390 | 0.397 | 0.450 | 0.431 | 0.445 | 0.463 | 0.463 |
| 450 | 0.520 | 0.508 | 0.521 | 0.588 | 0.575 | 0.643 | 0.606 | 0.633 |
| 400 | 0.695 | 0.686 | 0.735 | 0.788 | 0.758 | 0.909 | 0.833 | 0.863 |
| 350 | 0.896 | 0.909 | 1.008 | 1.082 | 1.088 | 1.240 | 1.129 | 1.179 |
| 300 | | 1.232 | 1.348 | | | | | 1.579 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 391.0 | 405.5 | 392.8 | 404.7 | 425.8 | 448.2 | 398.0 | 437.5 |
| 900 | 376.0 | 377.7 | 375.8 | 387.3 | 409.0 | 408.3 | 379.0 | 402.4 |
| 850 | 360.8 | 356.5 | 361.8 | 369.9 | 391.9 | 382.2 | 359.9 | 367.4 |
| 800 | 346.7 | 344.2 | 347.9 | 355.6 | 370.4 | 356.0 | 346.8 | 337.2 |
| 750 | 333.4 | 331.9 | 328.2 | 347.2 | 348.9 | 332.4 | 333.7 | 319.6 |
| 700 | 320.1 | 315.3 | 307.5 | 338.8 | 324.9 | 311.0 | 316.3 | 302.1 |
| 650 | 294.6 | 289.4 | 287.0 | 312.0 | 300.5 | 289.7 | 280.2 | 281.2 |
| 600 | 264.3 | 263.5 | 267.8 | 238.5 | 267.1 | 260.6 | 244.1 | 255.0 |
| 550 | 234.0 | 236.0 | 248.6 | 224.3 | 219.3 | 229.3 | 222.9 | 228.9 |
| 500 | 226.7 | 208.0 | 229.4 | 210.1 | 192.1 | 199.9 | 202.9 | 204.0 |
| 450 | 221.1 | 186.6 | 206.1 | 195.9 | 179.9 | 178.7 | 182.9 | 179.7 |
| 400 | 215.5 | 181.6 | 179.0 | 173.4 | 167.7 | 157.8 | 169.6 | 167.0 |
| 350 | 220.7 | 176.5 | 166.1 | 140.3 | 123.8 | 168.4 | 157.3 | 172.2 |
| 300 | | 158.9 | 174.4 | | | | | 174.9 |
| LONG | -85.04 | -84.56 | -84.14 | -83.74 | -83.37 | -83.19 | -82.85 | -82.54 |
| LAT | 43.74 | 41.75 | 39.81 | 37.86 | 35.86 | 34.91 | 32.90 | 30.94 |
| QUAL | 23 | 23 | 23 | 13 | 13 | 13 | 13 | 13 |

PASS 4138 AT OTTAWA, 63 729

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 115309 |
| 1000 | 0.090 |
| 950 | 0.099 |
| 900 | 0.112 |
| 850 | 0.128 |
| 800 | 0.149 |
| 750 | 0.174 |
| 700 | 0.203 |
| 650 | 0.240 |
| 600 | 0.286 |
| 550 | 0.372 |
| 500 | 0.488 |
| 450 | 0.643 |
| 400 | 0.891 |
| 350 | 1.208 |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 442.5 |
| 900 | 405.9 |
| 850 | 369.4 |
| 800 | 347.1 |
| 750 | 333.5 |
| 700 | 320.0 |
| 650 | 276.9 |
| 600 | 237.7 |
| 550 | 217.6 |
| 500 | 197.5 |
| 450 | 179.3 |
| 400 | 169.0 |
| 350 | 156.2 |
| 300 | |

| | |
|---|---|
| LONG | -82.44 |
| LAT | 30.27 |
| QUAL | 23 |

PASS 4138 AT QUITOE, 63 729

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 115820 | 115855 | 115931 | 120117 |
| 1000 | 0.098 | 0.111 | 0.102 | 0.107 |
| 950 | 0.111 | 0.122 | 0.110 | 0.122 |
| 900 | 0.123 | 0.134 | 0.120 | 0.131 |
| 850 | 0.139 | 0.149 | 0.133 | 0.140 |
| 800 | 0.159 | 0.169 | 0.152 | 0.153 |
| 750 | 0.183 | 0.192 | 0.175 | 0.169 |
| 700 | 0.212 | 0.221 | 0.203 | 0.194 |
| 650 | 0.253 | 0.254 | 0.234 | 0.227 |
| 600 | 0.301 | 0.293 | 0.269 | 0.268 |
| 550 | 0.364 | | 0.314 | 0.317 |
| 500 | 0.449 | | 0.406 | 0.418 |
| 450 | 0.598 | | 0.530 | 0.581 |
| 400 | 0.826 | | 0.778 | 0.848 |
| 350 | 1.334 | | 1.202 | 1.275 |
| 300 | 2.179 | | 1.959 | |

| HEIGHT | SCALE HEIGHT, KM | | | |
|---|---|---|---|---|
| 950 | 444.6 | 525.1 | 596.2 | |
| 900 | 421.2 | 474.9 | 517.6 | 677.3 |
| 850 | 387.4 | 434.0 | 450.4 | 620.7 |
| 800 | 366.9 | 414.7 | 413.7 | 525.0 |
| 750 | 346.4 | 395.4 | 377.1 | 429.3 |
| 700 | 325.8 | 376.1 | 346.9 | 382.4 |
| 650 | 305.0 | 354.1 | 325.0 | 343.5 |
| 600 | 284.2 | 332.0 | 303.1 | 304.7 |
| 550 | 251.3 | | 276.2 | 265.8 |
| 500 | 203.4 | | 219.3 | 189.1 |
| 450 | 172.7 | | 165.2 | 146.2 |
| 400 | 138.6 | | 137.3 | 129.8 |
| 350 | 103.8 | | 100.1 | 115.5 |
| 300 | 105.0 | | 105.1 | |

| | | | | |
|---|---|---|---|---|
| LONG | -80.32 | -80.12 | -79.92 | -79.36 |
| LAT | 12.80 | 10.83 | 8.80 | 2.82 |
| QUAL | 22 | 23 | 23 | 33 |

PASS 4151 AT OTTAWA, 63 730

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 104034 | 104110 | 104127 | 104203 | 104238 | 104342 | 104407 | 104442 |
| 1000 | 0.099 | 0.098 | 0.086 | 0.076 | 0.095 | 0.101 | 0.105 | 0.109 |
| 950 | 0.109 | 0.108 | 0.095 | 0.086 | 0.107 | 0.114 | 0.119 | 0.123 |
| 900 | 0.122 | 0.119 | 0.107 | 0.097 | 0.123 | 0.128 | 0.135 | 0.138 |
| 850 | 0.138 | 0.133 | 0.120 | 0.111 | 0.141 | 0.145 | 0.155 | 0.157 |
| 800 | 0.157 | 0.150 | 0.137 | 0.130 | 0.164 | 0.167 | 0.181 | 0.180 |
| 750 | 0.179 | 0.171 | 0.162 | 0.158 | 0.191 | 0.195 | 0.211 | 0.208 |
| 700 | 0.205 | 0.195 | 0.192 | 0.191 | 0.224 | 0.228 | 0.248 | 0.243 |
| 650 | 0.240 | 0.225 | 0.229 | 0.232 | 0.264 | 0.274 | 0.293 | 0.290 |
| 600 | 0.282 | 0.259 | 0.278 | 0.286 | 0.311 | 0.329 | 0.345 | 0.345 |
| 550 | 0.330 | 0.298 | 0.337 | 0.355 | 0.365 | 0.393 | 0.428 | 0.410 |
| 500 | 0.385 | 0.377 | 0.405 | 0.435 | 0.457 | 0.466 | 0.550 | 0.484 |
| 450 | 0.446 | 0.482 | 0.503 | 0.527 | 0.594 | 0.578 | 0.701 | 0.640 |
| 400 | 0.587 | 0.610 | 0.727 | 0.631 | 0.761 | 0.769 | 0.879 | 0.866 |
| 350 | 0.760 | 0.769 | 1.011 | 0.815 | 0.954 | 0.992 | 1.082 | 1.139 |
| 300 | 0.968 | 0.970 | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 463.3 | 510.1 | 448.6 | 396.0 | 396.7 | 414.4 | 397.5 | 428.0 |
| 900 | 437.1 | 473.5 | 416.4 | 364.8 | 373.8 | 395.5 | 372.8 | 404.3 |
| 850 | 410.9 | 438.1 | 384.2 | 333.6 | 351.0 | 376.6 | 348.7 | 380.8 |
| 800 | 385.7 | 413.2 | 354.1 | 310.8 | 337.0 | 348.8 | 336.1 | 354.9 |
| 750 | 361.0 | 388.3 | 327.8 | 293.9 | 323.1 | 317.6 | 323.5 | 327.4 |
| 700 | 336.2 | 363.3 | 301.4 | 276.9 | 308.8 | 291.7 | 307.3 | 301.8 |
| 650 | 323.5 | 337.9 | 277.0 | 260.0 | 293.8 | 282.9 | 284.4 | 288.3 |
| 600 | 311.3 | 312.6 | 261.4 | 251.4 | 278.7 | 274.1 | 261.5 | 274.9 |
| 550 | 299.0 | 287.3 | 245.8 | 247.3 | 263.7 | 265.2 | 247.6 | 261.5 |
| 500 | 286.8 | 268.1 | 230.2 | 243.3 | 253.2 | 256.4 | 238.8 | 248.1 |
| 450 | 274.5 | 249.8 | 201.1 | 239.2 | 245.6 | 241.4 | 230.0 | 221.7 |
| 400 | 250.2 | 231.4 | 117.5 | 235.2 | 238.0 | 216.2 | 233.1 | 190.2 |
| 350 | 225.9 | 221.3 | 34.0 | 170.8 | 237.8 | 214.8 | 241.5 | 192.9 |
| 300 | 214.2 | 220.9 | | | | | | |
| LONG | -70.21 | -69.69 | -69.48 | -69.03 | -68.64 | -67.97 | -67.73 | -67.42 |
| LAT | 45.02 | 43.03 | 42.09 | 40.09 | 38.14 | 34.57 | 33.18 | 31.22 |
| QUAL | 33 | 23 | 33 | 33 | 33 | 23 | 23 | 33 |

PASS 4151 AT OTTAWA, 63 730

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 104518 | 104553 | 104629 | 104704 |
| 1000 | 0.115 | 0.122 | 0.136 | 0.157 |
| 950 | 0.129 | 0.138 | 0.154 | 0.181 |
| 900 | 0.147 | 0.158 | 0.177 | 0.210 |
| 850 | 0.168 | 0.180 | 0.206 | 0.244 |
| 800 | 0.195 | 0.213 | 0.239 | 0.283 |
| 750 | 0.231 | 0.262 | 0.291 | 0.332 |
| 700 | 0.274 | 0.323 | 0.360 | 0.393 |
| 650 | 0.328 | 0.398 | 0.443 | 0.466 |
| 600 | 0.399 | 0.500 | 0.554 | 0.564 |
| 550 | 0.483 | 0.620 | 0.690 | 0.680 |
| 500 | 0.579 | 0.760 | 0.849 | 0.816 |
| 450 | 0.702 | 0.962 | 1.092 | 1.080 |
| 400 | 0.972 | 1.301 | 1.436 | |
| 350 | 1.233 | | | |
| 300 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | |
|---|---|---|---|---|
| 950 | 397.4 | 386.8 | 386.8 | 346.4 |
| 900 | 374.4 | 354.7 | 353.5 | 338.7 |
| 850 | 351.5 | 321.7 | 323.6 | 331.0 |
| 800 | 328.9 | 296.5 | 293.6 | 323.2 |
| 750 | 307.3 | 277.3 | 273.7 | 309.6 |
| 700 | 285.6 | 258.1 | 256.9 | 292.8 |
| 650 | 269.9 | 239.9 | 240.0 | 276.7 |
| 600 | 260.0 | 233.1 | 231.7 | 262.9 |
| 550 | 250.1 | 226.2 | 225.6 | 249.1 |
| 500 | 240.1 | 219.3 | 219.5 | 235.3 |
| 450 | 233.8 | 193.1 | 213.7 | 153.7 |
| 400 | 257.4 | 132.1 | 208.1 | |
| 350 | 423.9 | | | |
| 300 | | | | |

| | | | | |
|---|---|---|---|---|
| LONG | -67.12 | -66.84 | -66.57 | -66.31 |
| LAT | 29.21 | 27.25 | 25.23 | 23.27 |
| QUAL | 33 | 33 | 33 | 33 |

PASS 4151 AT QUITUE, 63 730

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 105021 | 105056 | 105132 | 105207 | 105243 | 105318 | 105354 | 105429 |
| 1000 | 0.106 | 0.137 | 0.131 | 0.149 | 0.159 | 0.157 | 0.166 | 0.167 |
| 950 | 0.127 | 0.157 | 0.149 | 0.170 | 0.179 | 0.177 | 0.188 | 0.186 |
| 900 | 0.150 | 0.182 | 0.172 | 0.199 | 0.206 | 0.203 | 0.209 | 0.205 |
| 850 | 0.178 | 0.212 | 0.201 | 0.235 | 0.236 | 0.234 | 0.235 | 0.227 |
| 800 | 0.212 | 0.247 | 0.236 | 0.273 | 0.271 | 0.269 | 0.265 | 0.253 |
| 750 | 0.253 | 0.289 | 0.277 | 0.319 | 0.318 | 0.311 | 0.303 | 0.286 |
| 700 | 0.312 | 0.353 | 0.334 | 0.381 | 0.378 | 0.368 | 0.354 | 0.324 |
| 650 | 0.395 | 0.432 | 0.427 | 0.455 | 0.460 | 0.438 | 0.415 | 0.384 |
| 600 | 0.498 | 0.552 | 0.543 | 0.562 | 0.562 | 0.532 | 0.500 | 0.460 |
| 550 | 0.642 | 0.732 | 0.707 | 0.726 | 0.717 | 0.672 | 0.615 | 0.564 |
| 500 | 0.823 | 1.036 | 0.944 | 0.984 | 0.956 | 0.869 | 0.798 | 0.741 |
| 450 | 1.218 | 1.544 | 1.421 | 1.474 | 1.364 | 1.183 | 1.124 | 1.008 |
| 400 | 2.050 | 2.393 | 2.280 | 2.332 | 2.095 | 1.675 | 1.634 | 1.471 |
| 350 | 3.204 | 3.691 | 3.473 | | 3.019 | 2.397 | | 2.243 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 283.9 | 344.4 | 357.7 | 339.5 | 388.3 | 376.0 | 419.0 | 484.7 |
| 900 | 285.2 | 331.8 | 322.3 | 329.7 | 372.4 | 360.9 | 428.4 | 482.1 |
| 850 | 281.8 | 318.8 | 308.7 | 320.5 | 354.2 | 350.4 | 406.1 | 459.0 |
| 800 | 269.1 | 305.7 | 295.1 | 312.1 | 333.2 | 340.5 | 383.9 | 426.1 |
| 750 | 256.4 | 290.3 | 281.5 | 300.8 | 301.1 | 325.9 | 358.2 | 387.8 |
| 700 | 242.8 | 260.6 | 262.6 | 283.5 | 273.8 | 300.0 | 329.8 | 349.6 |
| 650 | 228.5 | 230.7 | 232.5 | 264.6 | 254.7 | 271.5 | 301.5 | 309.4 |
| 600 | 214.1 | 198.4 | 202.7 | 220.0 | 234.5 | 237.2 | 260.4 | 269.3 |
| 550 | 194.7 | 163.7 | 183.0 | 186.0 | 196.9 | 209.7 | 218.5 | 229.1 |
| 500 | 174.4 | 135.5 | 152.7 | 148.9 | 162.5 | 184.5 | 175.6 | 189.2 |
| 450 | 111.1 | 122.2 | 114.6 | 115.3 | 131.1 | 154.3 | 142.3 | 152.3 |
| 400 | 102.6 | 113.8 | 109.5 | 111.0 | 124.4 | 142.1 | 141.6 | 126.4 |
| 350 | 121.1 | 131.4 | 140.1 | | 147.5 | 148.2 | | 116.6 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -65.09 | -64.89 | -64.69 | -64.50 | -64.32 | -64.13 | -63.94 | -63.76 |
| LAT | 12.18 | 10.21 | 8.18 | 6.21 | 4.18 | 2.21 | 0.18 | -1.80 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 33 | 33 | 33 |

PASS 4151 AT QUITOE, 63 730

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 105505 | 105540 | 105558 | 105633 | 105709 | 105744 |
| 1000 | 0.165 | 0.184 | 0.184 | 0.153 | 0.150 | 0.154 |
| 950 | 0.183 | 0.196 | 0.184 | 0.161 | 0.161 | 0.165 |
| 900 | 0.202 | 0.213 | 0.176 | 0.175 | 0.174 | 0.179 |
| 850 | 0.223 | 0.232 | 0.194 | 0.198 | 0.193 | 0.200 |
| 800 | 0.250 | 0.259 | 0.222 | 0.221 | 0.230 | 0.226 |
| 750 | 0.284 | 0.302 | 0.258 | 0.243 | 0.275 | 0.254 |
| 700 | 0.325 | 0.356 | 0.298 | 0.280 | 0.318 | 0.296 |
| 650 | 0.376 | 0.418 | 0.343 | 0.344 | 0.362 | 0.353 |
| 600 | 0.440 | 0.487 | 0.407 | 0.420 | 0.444 | 0.427 |
| 550 | 0.514 | 0.565 | 0.502 | 0.518 | 0.569 | 0.530 |
| 500 | 0.647 | 0.693 | 0.666 | 0.704 | 0.788 | 0.718 |
| 450 | 0.823 | 0.891 | 0.944 | 1.045 | 1.170 | 1.065 |
| 400 | 1.171 | 1.209 | 1.409 | 1.649 | 1.863 | 1.747 |
| 350 | 1.907 | 1.844 | 2.018 | | | 2.550 |
| 300 | 3.108 | 2.750 | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 500.6 | 632.7 | 698.6 | 766.3 | 728.5 | 662.8 |
| 900 | 485.1 | 566.0 | 585.8 | 546.4 | 580.6 | 529.8 |
| 850 | 453.9 | 499.3 | 489.1 | 432.7 | 454.3 | 439.4 |
| 800 | 423.6 | 437.5 | 418.5 | 409.3 | 370.9 | 399.3 |
| 750 | 394.3 | 387.7 | 354.6 | 385.8 | 316.1 | 365.4 |
| 700 | 365.0 | 337.8 | 339.0 | 342.6 | 309.4 | 328.3 |
| 650 | 334.8 | 313.4 | 323.3 | 279.3 | 302.8 | 290.7 |
| 600 | 304.1 | 301.4 | 274.0 | 243.4 | 239.8 | 253.3 |
| 550 | 273.4 | 289.4 | 209.7 | 203.9 | 173.7 | 201.1 |
| 500 | 230.2 | 235.9 | 163.5 | 147.1 | 146.5 | 148.5 |
| 450 | 185.6 | 181.3 | 140.3 | 120.5 | 113.9 | 116.9 |
| 400 | 125.0 | 147.0 | 131.9 | 131.2 | 124.2 | 117.4 |
| 350 | 100.5 | 121.0 | 159.3 | | | 136.8 |
| 300 | 112.6 | 134.0 | | | | |
| LONG | -63.56 | -63.38 | -63.28 | -63.09 | -62.90 | -62.70 |
| LAT | -3.83 | -5.80 | -6.82 | -8.79 | -10.83 | -12.80 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 4158 AT QUITOE, 63 731

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 38 | 113 | 224 | 300 | 335 | 411 | 446 |
| 1000 | 0.277 | 0.262 | 0.272 | 0.272 | 0.278 | 0.282 | 0.308 |
| 950 | 0.315 | 0.308 | 0.319 | 0.316 | 0.316 | 0.321 | 0.344 |
| 900 | 0.367 | 0.365 | 0.380 | 0.371 | 0.364 | 0.362 | 0.389 |
| 850 | 0.437 | 0.441 | 0.455 | 0.442 | 0.439 | 0.421 | 0.446 |
| 800 | 0.540 | 0.541 | 0.553 | 0.551 | 0.546 | 0.497 | 0.518 |
| 750 | 0.654 | 0.663 | 0.680 | 0.695 | 0.693 | 0.640 | 0.619 |
| 700 | 0.806 | 0.808 | 0.840 | 0.866 | 0.887 | 0.884 | 0.791 |
| 650 | 1.005 | 1.012 | 1.062 | 1.101 | 1.148 | 1.159 | 1.068 |
| 600 | 1.329 | 1.330 | 1.386 | 1.449 | 1.528 | 1.557 | 1.507 |
| 550 | 1.811 | 1.832 | 1.876 | 1.974 | 2.105 | 2.207 | 2.165 |
| 500 | 2.546 | 2.597 | 2.656 | 2.816 | 2.990 | 3.253 | 3.218 |
| 450 | 3.636 | 3.663 | 3.731 | 3.961 | 4.214 | 4.562 | 4.680 |
| 400 | 5.026 | 4.946 | 4.846 | | 5.532 | 5.916 | 6.459 |
| 350 | 6.567 | 6.347 | | | | | |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 345.2 | 305.3 | 291.1 | 311.7 | 359.7 | 403.2 | 412.2 |
| 900 | 306.6 | 273.0 | 277.9 | 288.0 | 299.6 | 358.4 | 387.1 |
| 850 | 276.2 | 259.2 | 270.8 | 261.7 | 265.6 | 315.8 | 353.8 |
| 800 | 256.9 | 255.4 | 250.5 | 232.6 | 237.3 | 273.1 | 307.8 |
| 750 | 244.2 | 246.7 | 234.2 | 217.4 | 216.6 | 178.2 | 240.0 |
| 700 | 228.7 | 232.9 | 225.5 | 215.5 | 202.7 | 174.2 | 197.9 |
| 650 | 209.5 | 208.0 | 205.2 | 198.1 | 186.2 | 176.0 | 162.9 |
| 600 | 171.6 | 173.3 | 179.1 | 174.0 | 167.8 | 158.9 | 143.3 |
| 550 | 156.8 | 151.5 | 156.4 | 152.7 | 147.3 | 133.2 | 132.8 |
| 500 | 143.1 | 142.8 | 142.3 | 141.1 | 143.6 | 135.5 | 124.7 |
| 450 | 145.8 | 156.0 | 167.2 | 160.0 | 159.1 | 169.5 | 143.9 |
| 400 | 168.1 | 180.3 | 267.6 | | 262.8 | 288.1 | 212.0 |
| 350 | 244.2 | 345.8 | | | | | |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -84.39 | -84.18 | -83.78 | -83.58 | -83.39 | -83.20 | -83.02 |
| LAT | -15.83 | -13.86 | -9.86 | -7.83 | -5.85 | -3.83 | -1.86 |
| QUAL | 23 | 23 | 23 | 23 | 22 | 23 | 23 |

PASS 4158 AT QUITOE, 63 731

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 522 | 557 | 633 | 708 | 744 | 819 | 855 | 930 |
| 1000 | 0.327 | 0.338 | 0.330 | 0.314 | 0.285 | 0.262 | 0.252 | 0.235 |
| 950 | 0.366 | 0.390 | 0.381 | 0.367 | 0.336 | 0.305 | 0.296 | 0.273 |
| 900 | 0.405 | 0.445 | 0.438 | 0.423 | 0.389 | 0.357 | 0.345 | 0.315 |
| 850 | 0.451 | 0.510 | 0.507 | 0.492 | 0.459 | 0.419 | 0.403 | 0.367 |
| 800 | 0.503 | 0.593 | 0.606 | 0.588 | 0.542 | 0.507 | 0.482 | 0.441 |
| 750 | 0.561 | 0.728 | 0.747 | 0.711 | 0.680 | 0.628 | 0.588 | 0.536 |
| 700 | 0.705 | 0.906 | 0.932 | 0.870 | 0.858 | 0.793 | 0.737 | 0.678 |
| 650 | 0.947 | 1.144 | 1.174 | 1.121 | 1.098 | 1.045 | 0.950 | 0.864 |
| 600 | 1.245 | 1.495 | 1.538 | 1.492 | 1.455 | 1.424 | 1.282 | 1.143 |
| 550 | 1.911 | 2.071 | 2.088 | 2.029 | 2.008 | 2.024 | 1.824 | 1.576 |
| 500 | 3.059 | 3.118 | 2.986 | 2.883 | 2.919 | 3.005 | 2.719 | 2.298 |
| 450 | 4.647 | 5.085 | 4.375 | 4.339 | 4.388 | 4.570 | 4.274 | 3.446 |
| 400 | 6.625 | 7.437 | 6.388 | 6.339 | 6.664 | 6.923 | 6.686 | 5.427 |
| 350 | | | 9.132 | 8.956 | 9.700 | 9.925 | 9.630 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 459.6 | 363.2 | 346.5 | 337.0 | 312.1 | 310.0 | 312.3 | 340.4 |
| 900 | 440.9 | 363.0 | 338.8 | 325.4 | 303.7 | 302.0 | 310.3 | 323.1 |
| 850 | 408.7 | 330.4 | 317.3 | 305.9 | 285.3 | 290.3 | 302.2 | 297.5 |
| 800 | 376.5 | 285.1 | 252.8 | 283.3 | 266.8 | 250.2 | 266.7 | 268.0 |
| 750 | 344.4 | 257.7 | 240.6 | 258.3 | 243.4 | 223.8 | 237.8 | 240.0 |
| 700 | 261.3 | 230.3 | 226.1 | 222.1 | 219.6 | 204.1 | 217.1 | 219.2 |
| 650 | 173.3 | 204.4 | 203.9 | 190.0 | 192.9 | 176.7 | 188.1 | 196.8 |
| 600 | 153.5 | 175.2 | 179.2 | 172.3 | 168.5 | 154.8 | 156.9 | 168.8 |
| 550 | 110.4 | 135.8 | 149.6 | 153.4 | 144.8 | 134.0 | 135.2 | 148.2 |
| 500 | 109.6 | 106.8 | 137.1 | 132.0 | 127.6 | 120.3 | 116.6 | 126.0 |
| 450 | 130.1 | 112.0 | 128.3 | 128.2 | 120.2 | 119.1 | 112.0 | 116.0 |
| 400 | 170.7 | 159.6 | 139.8 | 136.8 | 127.4 | 132.8 | 124.7 | 120.9 |
| 350 | | | 133.5 | 153.4 | 138.9 | 159.4 | 162.8 | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -82.83 | -82.65 | -82.46 | -82.28 | -82.08 | -81.89 | -81.69 | -81.48 |
| LAT | 0.17 | 2.13 | 4.16 | 6.13 | 8.16 | 10.13 | 12.16 | 14.13 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 4158 AT QUITOE, 63 731

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 948 |
| 1000 | 0.245 |
| 950 | 0.285 |
| 900 | 0.331 |
| 850 | 0.385 |
| 800 | 0.459 |
| 750 | 0.555 |
| 700 | 0.695 |
| 650 | 0.879 |
| 600 | |
| 550 | |
| 500 | |
| 450 | |
| 400 | |
| 350 | |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 324.1 |
| 900 | 318.9 |
| 850 | 305.8 |
| 800 | 274.6 |
| 750 | 245.3 |
| 700 | 225.9 |
| 650 | 199.5 |
| 600 | |
| 550 | |
| 500 | |
| 450 | |
| 400 | |
| 350 | |
| 300 | |

LONG -81.38
LAT 15.14

QUAL 23

PASS 4159 AT OTTAWA, 63 731

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 1420 | 1456 | 1531 | 1606 | 1641 | 1717 | 1752 | 1828 |
| 1000 | 0.198 | 0.187 | 0.189 | 0.181 | 0.177 | 0.175 | 0.175 | 0.180 |
| 950 | 0.227 | 0.214 | 0.217 | 0.206 | 0.208 | 0.202 | 0.201 | 0.205 |
| 900 | 0.263 | 0.247 | 0.251 | 0.236 | 0.242 | 0.234 | 0.234 | 0.234 |
| 850 | 0.305 | 0.285 | 0.291 | 0.273 | 0.282 | 0.273 | 0.275 | 0.272 |
| 800 | 0.360 | 0.340 | 0.341 | 0.321 | 0.342 | 0.325 | 0.326 | 0.326 |
| 750 | 0.426 | 0.412 | 0.427 | 0.384 | 0.420 | 0.390 | 0.387 | 0.392 |
| 700 | 0.519 | 0.498 | 0.536 | 0.461 | 0.515 | 0.466 | 0.473 | 0.474 |
| 650 | 0.633 | 0.621 | 0.669 | 0.563 | 0.640 | 0.575 | 0.580 | 0.581 |
| 600 | 0.770 | 0.770 | 0.843 | 0.693 | 0.801 | 0.707 | 0.707 | 0.707 |
| 550 | 0.996 | 0.946 | 1.067 | 0.845 | 0.991 | 0.863 | 0.920 | 0.852 |
| 500 | 1.420 | 1.329 | 1.352 | 1.118 | 1.314 | 1.132 | 1.289 | 1.100 |
| 450 | 2.039 | 1.894 | 1.932 | 1.595 | 1.828 | 1.610 | 1.780 | 1.416 |
| 400 | 2.951 | 2.733 | 2.759 | 2.271 | 2.586 | 2.265 | 2.426 | 1.789 |
| 350 | 4.293 | | | 3.276 | | 3.053 | | 2.210 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 351.2 | 353.2 | 361.7 | 383.4 | 316.9 | 339.4 | 344.4 | 365.6 |
| 900 | 337.4 | 332.2 | 333.4 | 354.5 | 300.1 | 322.5 | 321.5 | 336.1 |
| 850 | 323.5 | 311.1 | 302.8 | 327.3 | 283.4 | 305.6 | 302.4 | 312.7 |
| 800 | 297.0 | 290.2 | 274.1 | 303.5 | 271.0 | 290.6 | 286.4 | 295.7 |
| 750 | 265.5 | 269.2 | 260.8 | 284.5 | 259.0 | 275.9 | 270.3 | 278.6 |
| 700 | 250.5 | 248.5 | 247.4 | 265.5 | 246.9 | 261.2 | 253.7 | 264.0 |
| 650 | 235.9 | 233.1 | 234.1 | 247.8 | 233.9 | 245.9 | 237.1 | 254.7 |
| 600 | 221.2 | 217.7 | 218.5 | 230.6 | 220.3 | 230.5 | 220.4 | 245.4 |
| 550 | 196.8 | 202.2 | 201.1 | 213.4 | 206.7 | 215.2 | 196.2 | 236.1 |
| 500 | 156.0 | 165.6 | 182.2 | 188.0 | 180.4 | 188.6 | 163.1 | 224.7 |
| 450 | 138.6 | 139.2 | 151.5 | 153.8 | 149.6 | 147.9 | 158.7 | 213.0 |
| 400 | 136.3 | 128.6 | 147.1 | 141.1 | 146.0 | 161.7 | 157.3 | 238.1 |
| 350 | 138.6 | | | 125.8 | | 202.4 | | 275.8 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -79.48 | -79.16 | -78.84 | -78.49 | -78.12 | -77.70 | -77.28 | -76.78 |
| LAT | 30.42 | 32.43 | 34.38 | 36.32 | 38.27 | 40.27 | 42.21 | 44.19 |
| QUAL | 13 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 4159 AT OTTAWA, 63 731

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 1938 | 2014 | 2049 | 2125 | 2143 | 2218 | 2254 |
| 1000 | 0.189 | 0.128 | 0.144 | 0.138 | 0.153 | 0.127 | 0.139 |
| 950 | 0.216 | 0.147 | 0.162 | 0.155 | 0.169 | 0.144 | 0.159 |
| 900 | 0.246 | 0.168 | 0.183 | 0.174 | 0.187 | 0.164 | 0.179 |
| 850 | 0.278 | 0.192 | 0.207 | 0.196 | 0.208 | 0.187 | 0.200 |
| 800 | 0.313 | 0.222 | 0.238 | 0.221 | 0.234 | 0.214 | 0.222 |
| 750 | 0.361 | 0.258 | 0.273 | 0.250 | 0.265 | 0.248 | 0.251 |
| 700 | 0.416 | 0.299 | 0.316 | 0.289 | 0.302 | 0.288 | 0.284 |
| 650 | 0.480 | 0.352 | 0.365 | 0.336 | 0.349 | 0.337 | 0.327 |
| 600 | 0.566 | 0.419 | 0.431 | 0.390 | 0.404 | 0.402 | 0.383 |
| 550 | 0.667 | 0.497 | 0.539 | 0.452 | 0.480 | 0.477 | 0.449 |
| 500 | 0.783 | 0.586 | 0.678 | 0.522 | 0.615 | 0.564 | 0.524 |
| 450 | 0.914 | 0.738 | 0.847 | 0.662 | 0.783 | 0.717 | 0.611 |
| 400 | 1.183 | 0.980 | 1.069 | 0.849 | 0.986 | 0.943 | 0.787 |
| 350 | 1.523 | 1.276 | 1.339 | 1.068 | 1.224 | 1.216 | 1.050 |
| 300 | 1.844 | | | 1.313 | 1.506 | 1.486 | 1.371 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 379.6 | 361.8 | 409.3 | 418.6 | 491.8 | 397.4 | |
| 900 | 380.4 | 358.4 | 395.9 | 419.0 | 469.6 | 383.5 | 417.5 |
| 850 | 379.9 | 355.0 | 382.9 | 408.7 | 447.4 | 370.2 | 424.3 |
| 800 | 376.4 | 344.2 | 371.5 | 385.7 | 418.3 | 356.1 | 430.3 |
| 750 | 360.2 | 330.1 | 360.2 | 362.6 | 388.8 | 338.7 | 396.0 |
| 700 | 344.0 | 316.0 | 335.6 | 348.0 | 359.8 | 321.4 | 361.8 |
| 650 | 327.8 | 301.4 | 301.3 | 333.9 | 331.2 | 304.2 | 338.7 |
| 600 | 312.4 | 286.5 | 273.5 | 319.9 | 302.6 | 287.5 | 322.3 |
| 550 | 297.1 | 271.7 | 260.7 | 305.9 | 275.2 | 270.8 | 306.0 |
| 500 | 281.7 | 256.9 | 247.9 | 291.9 | 250.8 | 254.1 | 289.6 |
| 450 | 266.3 | 259.0 | 235.2 | 270.7 | 226.3 | 243.5 | 273.3 |
| 400 | 294.3 | 276.3 | 249.3 | 247.9 | 228.3 | 236.0 | 244.0 |
| 350 | 324.6 | 293.7 | 272.1 | 234.0 | 237.6 | 232.8 | 208.1 |
| 300 | 543.5 | | | 252.6 | 247.5 | 339.8 | 196.3 |
| LONG | -75.71 | -75.08 | -74.40 | -73.61 | -73.20 | -72.31 | -71.30 |
| LAT | 48.05 | 50.02 | 51.93 | 53.89 | 54.87 | 56.76 | 58.70 |
| QUAL | 23 | 23 | 23 | 33 | 33 | 32 | 33 |

PASS 4159 AT OTTAWA, 63 731

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 2307 | 2454 |
| 1000 | 0.116 | 0.128 |
| 950 | 0.129 | 0.147 |
| 900 | 0.146 | 0.166 |
| 850 | 0.166 | 0.187 |
| 800 | 0.190 | 0.215 |
| 750 | 0.223 | 0.250 |
| 700 | 0.268 | 0.292 |
| 650 | 0.323 | 0.340 |
| 600 | 0.388 | 0.407 |
| 550 | 0.472 | 0.485 |
| 500 | 0.580 | 0.574 |
| 450 | 0.706 | 0.675 |
| 400 | 0.849 | 0.810 |
| 350 | 1.026 | 1.076 |
| 300 | 1.362 | 1.398 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 443.2 | 380.7 |
| 900 | 406.1 | 373.6 |
| 850 | 375.0 | 366.5 |
| 800 | 343.9 | 353.3 |
| 750 | 318.9 | 338.3 |
| 700 | 302.8 | 323.2 |
| 650 | 286.7 | 308.3 |
| 600 | 270.6 | 298.0 |
| 550 | 260.9 | 287.8 |
| 500 | 255.6 | 277.5 |
| 450 | 250.2 | 267.3 |
| 400 | 244.8 | 252.5 |
| 350 | 225.4 | 218.9 |
| 300 | 104.3 | 200.7 |
| LONG | -70.89 | -66.69 |
| LAT | 59.39 | 65.04 |
| QUAL | 33 | 33 |

PASS 4605 AT SOLANT, 63 9 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 175513 | 175532 | 175607 | 175642 | 175718 | 175753 | 175810 | 175846 |
| 1000 | 0.025 | 0.023 | 0.029 | 0.033 | 0.029 | 0.025 | 0.018 | 0.025 |
| 950 | 0.031 | 0.028 | 0.035 | 0.039 | 0.034 | 0.030 | 0.022 | 0.029 |
| 900 | 0.038 | 0.034 | 0.040 | 0.045 | 0.039 | 0.035 | 0.027 | 0.034 |
| 850 | 0.046 | 0.041 | 0.046 | 0.051 | 0.044 | 0.040 | 0.032 | 0.040 |
| 800 | 0.055 | 0.049 | 0.055 | 0.058 | 0.051 | 0.048 | 0.039 | 0.047 |
| 750 | 0.067 | 0.060 | 0.067 | 0.070 | 0.060 | 0.058 | 0.048 | 0.056 |
| 700 | 0.083 | 0.075 | 0.080 | 0.085 | 0.071 | 0.070 | 0.058 | 0.069 |
| 650 | 0.103 | 0.093 | 0.095 | 0.103 | 0.084 | 0.084 | 0.071 | 0.083 |
| 600 | 0.127 | 0.113 | 0.113 | 0.126 | 0.100 | 0.106 | 0.086 | 0.101 |
| 550 | 0.155 | 0.136 | 0.137 | 0.156 | 0.124 | 0.135 | 0.112 | 0.131 |
| 500 | 0.205 | 0.180 | 0.185 | 0.196 | 0.152 | 0.170 | 0.143 | 0.168 |
| 450 | 0.274 | 0.232 | 0.245 | 0.261 | 0.206 | 0.229 | 0.195 | 0.222 |
| 400 | 0.356 | 0.328 | 0.339 | 0.350 | 0.308 | 0.330 | 0.283 | 0.325 |
| 350 | 0.522 | 0.465 | 0.463 | 0.501 | 0.471 | 0.523 | 0.440 | 0.498 |
| 300 | 0.844 | 0.726 | 0.766 | 0.809 | 0.816 | 0.935 | 0.765 | 0.831 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 231.4 | 244.2 | 317.6 | 319.5 | 357.8 | 297.2 | 232.1 | 292.8 |
| 900 | 249.0 | 257.2 | 317.4 | 339.7 | 355.0 | 308.5 | 252.8 | 298.1 |
| 850 | 251.7 | 252.2 | 313.1 | 324.2 | 340.9 | 294.6 | 254.8 | 291.3 |
| 800 | 248.5 | 247.2 | 291.9 | 308.9 | 328.0 | 284.6 | 253.0 | 284.5 |
| 750 | 244.8 | 244.6 | 272.7 | 295.9 | 316.7 | 274.5 | 250.4 | 274.0 |
| 700 | 238.9 | 242.5 | 264.7 | 282.9 | 305.4 | 264.5 | 247.8 | 261.4 |
| 650 | 233.0 | 240.4 | 256.8 | 269.9 | 294.1 | 254.4 | 245.2 | 248.8 |
| 600 | 227.1 | 238.3 | 248.8 | 251.9 | 280.5 | 236.8 | 239.0 | 235.7 |
| 550 | 221.2 | 236.1 | 235.0 | 225.3 | 245.8 | 216.2 | 212.8 | 213.4 |
| 500 | 204.8 | 203.4 | 203.7 | 200.5 | 211.1 | 195.6 | 186.6 | 191.1 |
| 450 | 185.4 | 170.7 | 172.3 | 180.5 | 148.3 | 165.8 | 159.4 | 165.8 |
| 400 | 166.0 | 151.0 | 153.5 | 159.0 | 115.4 | 126.2 | 131.0 | 132.5 |
| 350 | 129.0 | 131.0 | 136.7 | 129.4 | 108.0 | 100.0 | 105.9 | 106.7 |
| 300 | 93.5 | 105.6 | 85.2 | 88.8 | 78.8 | 75.6 | 81.4 | 87.7 |
| LONG | -77.37 | -76.41 | -74.72 | -73.34 | -72.06 | -70.96 | -70.48 | -69.56 |
| LAT | -66.45 | -65.46 | -63.64 | -61.79 | -59.88 | -58.00 | -57.09 | -55.14 |
| QUAL | 33 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 4605 AT SOLANT, 63 9 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 175921 | 180310 | 180345 |
| 1000 | 0.038 | 0.075 | 0.083 |
| 950 | 0.043 | 0.083 | 0.093 |
| 900 | 0.049 | 0.091 | 0.101 |
| 850 | 0.055 | 0.100 | 0.111 |
| 800 | 0.063 | 0.112 | 0.122 |
| 750 | 0.074 | 0.127 | 0.141 |
| 700 | 0.087 | 0.145 | 0.171 |
| 650 | 0.102 | 0.171 | 0.208 |
| 600 | 0.125 | 0.210 | 0.254 |
| 550 | 0.158 | 0.260 | 0.307 |
| 500 | 0.198 | 0.351 | 0.418 |
| 450 | 0.248 | 0.525 | 0.624 |
| 400 | 0.360 | 0.828 | 0.961 |
| 350 | 0.505 | 1.320 | 1.569 |
| 300 | 0.814 | 2.327 | 2.816 |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 405.3 | 514.3 | 507.5 |
| 900 | 384.2 | 513.9 | 519.3 |
| 850 | 365.0 | 452.8 | 469.7 |
| 800 | 345.7 | 418.9 | 420.1 |
| 750 | 323.5 | 385.0 | 369.6 |
| 700 | 300.5 | 351.1 | 318.4 |
| 650 | 277.4 | 309.9 | 267.3 |
| 600 | 255.1 | 259.9 | 239.0 |
| 550 | 233.4 | 209.3 | 212.3 |
| 500 | 211.8 | 151.0 | 164.2 |
| 450 | 189.4 | 116.5 | 121.8 |
| 400 | 159.5 | 110.5 | 110.8 |
| 350 | 129.6 | 98.4 | 96.2 |
| 300 | 97.8 | 78.8 | 78.6 |
| LONG | -68.75 | -65.02 | -64.62 |
| LAT | -53.24 | -40.68 | -38.74 |
| QUAL | 23 | 23 | 23 |

PASS 4605 AT AGASTA, 63 9 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 180531 | 181050 |
| 1000 | 0.156 | 0.326 |
| 950 | 0.171 | 0.372 |
| 900 | 0.189 | 0.435 |
| 850 | 0.211 | 0.528 |
| 800 | 0.239 | 0.654 |
| 750 | 0.274 | 0.822 |
| 700 | 0.314 | 1.124 |
| 650 | 0.373 | 1.594 |
| 600 | 0.455 | 2.341 |
| 550 | 0.598 | 3.350 |
| 500 | 0.865 | 4.355 |
| 450 | 1.426 | |
| 400 | | |
| 350 | | |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 521.6 | 342.6 |
| 900 | 471.9 | 295.6 |
| 850 | 432.0 | 246.0 |
| 800 | 394.7 | 221.4 |
| 750 | 361.3 | 195.6 |
| 700 | 328.4 | 157.4 |
| 650 | 281.2 | 135.7 |
| 600 | 224.5 | 135.8 |
| 550 | 163.1 | 160.3 |
| 500 | 120.2 | 262.7 |
| 450 | 94.5 | |
| 400 | | |
| 350 | | |
| 300 | | |

| | | |
|---|---|---|
| LONG | -63.56 | -61.27 |
| LAT | -32.86 | -15.06 |
| QUAL | 13 | 13 |

PASS 4606 AT STJOHN, 63 9 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 182420 | 182456 | 182531 | 182605 | 182640 | 182715 | 182752 | 182826 |
| 1000 | 0.132 | 0.140 | 0.144 | 0.133 | 0.140 | 0.134 | 0.128 | 0.136 |
| 950 | 0.155 | 0.160 | 0.164 | 0.154 | 0.161 | 0.152 | 0.146 | 0.155 |
| 900 | 0.184 | 0.184 | 0.191 | 0.179 | 0.188 | 0.174 | 0.167 | 0.177 |
| 850 | 0.215 | 0.213 | 0.220 | 0.207 | 0.217 | 0.199 | 0.192 | 0.202 |
| 800 | 0.251 | 0.248 | 0.254 | 0.242 | 0.251 | 0.231 | 0.222 | 0.234 |
| 750 | 0.298 | 0.292 | 0.299 | 0.283 | 0.292 | 0.271 | 0.261 | 0.276 |
| 700 | 0.354 | 0.349 | 0.353 | 0.334 | 0.346 | 0.320 | 0.309 | 0.326 |
| 650 | 0.426 | 0.420 | 0.419 | 0.399 | 0.413 | 0.385 | 0.373 | 0.389 |
| 600 | 0.523 | 0.504 | 0.510 | 0.486 | 0.510 | 0.467 | 0.450 | 0.477 |
| 550 | 0.673 | 0.654 | 0.643 | 0.615 | 0.642 | 0.600 | 0.572 | 0.603 |
| 500 | 0.884 | 0.863 | 0.834 | 0.794 | 0.839 | 0.777 | 0.736 | 0.782 |
| 450 | 1.223 | 1.196 | 1.151 | 1.085 | 1.133 | 1.047 | 0.996 | 1.051 |
| 400 | 1.756 | 1.718 | 1.637 | 1.535 | 1.565 | 1.451 | 1.396 | 1.449 |
| 350 | 2.543 | 2.507 | 2.329 | 2.201 | 2.206 | 2.069 | 1.984 | 2.041 |
| 300 | 3.651 | 3.627 | 3.292 | 3.131 | 3.099 | 2.956 | 2.837 | 2.909 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 304.2 | 348.0 | 351.6 | 341.4 | 336.2 | 371.6 | 368.2 | 377.4 |
| 900 | 303.9 | 342.8 | 343.9 | 334.1 | 337.8 | 361.0 | 359.4 | 363.4 |
| 850 | 303.7 | 336.4 | 333.3 | 326.8 | 339.1 | 344.2 | 345.7 | 342.9 |
| 800 | 302.5 | 320.9 | 322.6 | 317.8 | 328.2 | 326.7 | 329.1 | 326.0 |
| 750 | 292.9 | 286.3 | 310.4 | 308.8 | 309.1 | 308.5 | 306.1 | 311.7 |
| 700 | 283.4 | 270.3 | 298.2 | 290.2 | 285.4 | 288.6 | 283.2 | 297.4 |
| 650 | 258.5 | 256.3 | 280.0 | 264.2 | 260.6 | 260.6 | 261.5 | 275.1 |
| 600 | 219.1 | 242.0 | 238.3 | 238.3 | 235.4 | 233.2 | 239.7 | 235.6 |
| 550 | 198.9 | 204.1 | 208.0 | 212.6 | 210.0 | 209.2 | 214.6 | 206.4 |
| 500 | 174.2 | 169.8 | 183.0 | 185.3 | 184.2 | 185.3 | 188.8 | 182.9 |
| 450 | 147.8 | 147.5 | 147.6 | 154.3 | 163.0 | 161.7 | 160.3 | 165.5 |
| 400 | 135.7 | 136.0 | 145.2 | 143.5 | 152.1 | 151.4 | 147.7 | 155.2 |
| 350 | 138.6 | 133.6 | 143.7 | 140.6 | 146.6 | 139.4 | 140.7 | 142.0 |
| 300 | 146.7 | 143.7 | 159.2 | 151.7 | 156.2 | 149.9 | 146.3 | 153.3 |
| LONG | -56.46 | -56.15 | -55.82 | -55.49 | -55.11 | -54.71 | -54.26 | -53.80 |
| LAT | 30.35 | 32.36 | 34.31 | 36.20 | 38.15 | 40.09 | 42.15 | 44.03 |
| QUAL | 23 | 22 | 11 | 11 | 11 | 12 | 12 | 12 |

PASS 4606 AT STJOHN, 63 9 1

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 182901 | 182936 | 183011 | 183047 | 183124 | 183157 | 183234 | 183308 |
| 1000 | 0.161 | 0.162 | 0.156 | 0.171 | 0.205 | 0.226 | 0.216 | 0.210 |
| 950 | 0.181 | 0.188 | 0.177 | 0.195 | 0.235 | 0.255 | 0.245 | 0.233 |
| 900 | 0.204 | 0.213 | 0.204 | 0.224 | 0.267 | 0.286 | 0.284 | 0.261 |
| 850 | 0.232 | 0.243 | 0.234 | 0.255 | 0.307 | 0.326 | 0.327 | 0.295 |
| 800 | 0.268 | 0.279 | 0.271 | 0.296 | 0.355 | 0.372 | 0.376 | 0.340 |
| 750 | 0.312 | 0.325 | 0.319 | 0.346 | 0.412 | 0.435 | 0.441 | 0.397 |
| 700 | 0.367 | 0.379 | 0.376 | 0.404 | 0.487 | 0.513 | 0.525 | 0.465 |
| 650 | 0.436 | 0.455 | 0.449 | 0.487 | 0.583 | 0.616 | 0.627 | 0.557 |
| 600 | 0.524 | 0.552 | 0.548 | 0.592 | 0.705 | 0.740 | 0.777 | 0.671 |
| 550 | 0.656 | 0.695 | 0.694 | 0.748 | 0.874 | 0.928 | 0.973 | 0.822 |
| 500 | 0.842 | 0.899 | 0.908 | 0.953 | 1.114 | 1.180 | 1.242 | 1.038 |
| 450 | 1.105 | 1.196 | 1.211 | 1.272 | 1.439 | 1.515 | 1.603 | 1.323 |
| 400 | 1.483 | 1.617 | 1.634 | 1.704 | 1.870 | 1.961 | 2.068 | 1.699 |
| 350 | 2.019 | 2.201 | 2.231 | 2.289 | 2.460 | 2.581 | 2.623 | 2.150 |
| 300 | 2.781 | 2.949 | 2.981 | 3.056 | 3.145 | 3.265 | 3.136 | 2.553 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 405.0 | 355.1 | 364.6 | 366.9 | 358.3 | 397.3 | 365.5 | 435.4 |
| 900 | 387.5 | 376.4 | 351.9 | 359.6 | 359.3 | 391.3 | 351.4 | 406.6 |
| 850 | 363.6 | 357.6 | 336.6 | 343.0 | 350.2 | 372.1 | 338.4 | 372.1 |
| 800 | 344.3 | 340.8 | 324.3 | 329.7 | 341.0 | 353.0 | 325.6 | 349.1 |
| 750 | 325.5 | 324.9 | 313.9 | 316.3 | 324.1 | 322.7 | 307.6 | 328.1 |
| 700 | 304.1 | 308.9 | 303.4 | 302.9 | 291.9 | 289.7 | 287.2 | 307.1 |
| 650 | 278.8 | 275.4 | 270.5 | 272.7 | 269.2 | 269.5 | 266.2 | 285.2 |
| 600 | 252.1 | 239.2 | 230.2 | 237.6 | 251.5 | 249.8 | 239.4 | 263.1 |
| 550 | 221.2 | 212.3 | 204.3 | 215.2 | 225.2 | 224.6 | 215.5 | 237.4 |
| 500 | 196.8 | 187.7 | 184.2 | 195.3 | 202.5 | 207.1 | 201.3 | 210.4 |
| 450 | 179.2 | 172.3 | 173.2 | 180.7 | 197.0 | 198.3 | 198.1 | 206.0 |
| 400 | 170.3 | 165.8 | 165.7 | 170.5 | 186.3 | 188.8 | 205.3 | 209.3 |
| 350 | 159.2 | 167.3 | 166.5 | 171.9 | 192.6 | 194.3 | 241.9 | 253.1 |
| 300 | 169.5 | 156.3 | 205.7 | 209.5 | 254.2 | 290.7 | 571.9 | 425.5 |
| LONG | -53.30 | -52.73 | -52.12 | -51.42 | -50.61 | -49.85 | -48.83 | -47.82 |
| LAT | 45.96 | 47.89 | 49.81 | 51.79 | 53.81 | 55.61 | 57.61 | 59.45 |
| QUAL | 23 | 21 | 21 | 21 | 31 | 31 | 31 | 31 |

PASS 4654 AT COLEGE, 63 9 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 70717 | 70830 | 70905 | 71216 | 71254 | 71327 | 71402 |
| 1000 | 0.099 | 0.110 | 0.091 | 0.059 | 0.038 | 0.016 | 0.031 |
| 950 | 0.114 | 0.127 | 0.103 | 0.068 | 0.045 | 0.022 | 0.038 |
| 900 | 0.130 | 0.147 | 0.117 | 0.077 | 0.053 | 0.026 | 0.043 |
| 850 | 0.146 | 0.172 | 0.132 | 0.090 | 0.063 | 0.031 | 0.051 |
| 800 | 0.165 | 0.195 | 0.149 | 0.104 | 0.073 | 0.038 | 0.061 |
| 750 | 0.190 | 0.221 | 0.170 | 0.122 | 0.091 | 0.051 | 0.079 |
| 700 | 0.220 | 0.256 | 0.197 | 0.146 | 0.116 | 0.068 | 0.105 |
| 650 | 0.260 | 0.300 | 0.231 | 0.181 | 0.152 | 0.091 | 0.141 |
| 600 | 0.310 | 0.357 | 0.276 | 0.238 | 0.203 | 0.128 | 0.194 |
| 550 | 0.372 | 0.432 | 0.341 | 0.333 | 0.281 | 0.183 | 0.271 |
| 500 | 0.462 | 0.532 | 0.434 | 0.478 | 0.401 | 0.277 | 0.399 |
| 450 | 0.577 | 0.661 | 0.562 | 0.695 | 0.580 | 0.433 | 0.594 |
| 400 | 0.741 | 0.840 | 0.744 | 1.000 | 0.873 | 0.660 | 0.879 |
| 350 | 0.962 | 1.069 | 1.000 | 1.316 | 1.284 | 0.982 | 1.248 |
| 300 | 1.261 | 1.441 | 1.390 | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 380.5 | 343.1 | 400.2 | 408.7 | 316.3 | 263.9 | 366.4 |
| 900 | 416.7 | 336.7 | 407.3 | 359.0 | 306.0 | 285.4 | 321.7 |
| 850 | 406.9 | 364.1 | 406.3 | 333.0 | 324.2 | 263.9 | 273.8 |
| 800 | 380.2 | 385.3 | 386.4 | 321.5 | 270.8 | 205.3 | 243.9 |
| 750 | 350.3 | 358.1 | 357.1 | 295.1 | 221.9 | 173.5 | 183.0 |
| 700 | 319.0 | 336.1 | 327.5 | 260.4 | 198.5 | 168.2 | 176.2 |
| 650 | 298.4 | 314.1 | 297.0 | 208.2 | 185.4 | 162.9 | 168.7 |
| 600 | 275.2 | 274.6 | 264.6 | 166.2 | 165.0 | 150.0 | 157.1 |
| 550 | 248.6 | 251.5 | 228.7 | 148.2 | 150.4 | 133.7 | 142.4 |
| 500 | 233.0 | 239.6 | 206.2 | 139.0 | 134.5 | 117.0 | 128.4 |
| 450 | 218.6 | 225.7 | 191.5 | 137.8 | 130.5 | 116.0 | 127.6 |
| 400 | 201.8 | 205.9 | 176.6 | 156.2 | 124.8 | 122.9 | 135.6 |
| 350 | 185.2 | 189.1 | 163.0 | 260.2 | 161.8 | 136.3 | 167.3 |
| 300 | 173.7 | 173.6 | 154.1 | | | | |
| LONG | -162.76 | -141.09 | -132.42 | -107.82 | -105.23 | -103.42 | -101.64 |
| LAT | 80.32 | 79.02 | 78.01 | 69.57 | 67.66 | 65.96 | 64.13 |
| QUAL | 32 | 22 | 22 | 22 | 22 | 22 | 12 |

PASS 4654 AT COLEGE, 63 9 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 71420 | 71512 | 71530 | 71625 |
| 1000 | 0.048 | 0.054 | 0.040 | 0.028 |
| 950 | 0.057 | 0.063 | 0.049 | 0.036 |
| 900 | 0.065 | 0.070 | 0.054 | 0.043 |
| 850 | 0.074 | 0.077 | 0.066 | 0.051 |
| 800 | 0.084 | 0.086 | 0.078 | 0.060 |
| 750 | 0.097 | 0.101 | 0.093 | 0.071 |
| 700 | 0.114 | 0.126 | 0.114 | 0.083 |
| 650 | 0.140 | 0.160 | 0.142 | 0.099 |
| 600 | 0.190 | 0.213 | 0.186 | 0.120 |
| 550 | 0.269 | 0.292 | 0.256 | 0.151 |
| 500 | 0.409 | 0.411 | 0.369 | 0.198 |
| 450 | 0.616 | 0.579 | 0.531 | 0.266 |
| 400 | 0.913 | 0.805 | 0.755 | 0.363 |
| 350 | 1.383 | 1.124 | 1.065 | 0.517 |
| 300 | 1.848 | | | 0.714 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 331.3 | 398.4 | 392.4 | 263.8 |
| 900 | 390.9 | 520.6 | 350.3 | 295.2 |
| 850 | 402.0 | 469.6 | 283.3 | 311.0 |
| 800 | 365.4 | 397.4 | 278.4 | 307.9 |
| 750 | 336.7 | 256.1 | 260.3 | 302.5 |
| 700 | 284.4 | 212.3 | 244.4 | 290.9 |
| 650 | 204.2 | 193.4 | 211.8 | 272.5 |
| 600 | 157.8 | 172.3 | 173.4 | 242.9 |
| 550 | 130.8 | 155.8 | 150.0 | 200.8 |
| 500 | 119.1 | 148.0 | 133.0 | 180.9 |
| 450 | 125.4 | 148.7 | 139.3 | 168.2 |
| 400 | 128.4 | 152.1 | 144.2 | 154.4 |
| 350 | 143.6 | 156.5 | 161.0 | 147.6 |
| 300 | 160.3 | | | 168.6 |
| LONG | -100.91 | -98.91 | -98.33 | -96.72 |
| LAT | 63.18 | 60.41 | 59.44 | 56.47 |
| QUAL | 22 | 12 | 22 | 12 |

PASS 4654 AT GFURKS, 63 9 5

ELECTRON DENSITY IN ELECTRONS PER CC (X1C-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 71532 | 71625 | 72201 | 72329 | 72404 | 72439 | 72515 | 72550 |
| 1000 | 0.045 | 0.033 | 0.067 | 0.081 | 0.114 | 0.110 | 0.120 | 0.131 |
| 950 | 0.051 | 0.038 | 0.074 | 0.089 | 0.119 | 0.117 | 0.131 | 0.143 |
| 900 | 0.057 | 0.045 | 0.078 | 0.096 | 0.123 | 0.123 | 0.136 | 0.147 |
| 850 | 0.067 | 0.053 | 0.081 | 0.102 | 0.128 | 0.128 | 0.143 | 0.153 |
| 800 | 0.080 | 0.061 | 0.084 | 0.109 | 0.135 | 0.134 | 0.151 | 0.160 |
| 750 | 0.096 | 0.071 | 0.089 | 0.117 | 0.141 | 0.141 | 0.160 | 0.168 |
| 700 | 0.119 | 0.082 | 0.095 | 0.125 | 0.148 | 0.151 | 0.169 | 0.176 |
| 650 | 0.148 | 0.099 | 0.103 | 0.135 | 0.156 | 0.162 | 0.181 | 0.185 |
| 600 | 0.190 | 0.124 | 0.118 | 0.147 | 0.166 | 0.175 | 0.195 | 0.197 |
| 550 | 0.264 | 0.159 | 0.139 | 0.164 | 0.181 | 0.195 | 0.219 | 0.213 |
| 500 | 0.381 | 0.206 | 0.179 | 0.192 | 0.222 | 0.246 | 0.260 | 0.251 |
| 450 | 0.538 | 0.279 | 0.259 | 0.252 | 0.311 | 0.322 | 0.345 | 0.325 |
| 400 | 0.750 | 0.392 | 0.421 | 0.404 | 0.504 | 0.535 | 0.552 | 0.501 |
| 350 | 1.019 | 0.550 | 0.684 | 0.727 | 0.862 | 0.968 | 0.979 | 0.847 |
| 300 | | 0.745 | | 1.196 | | | | 1.294 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 457.3 | 314.6 | 978.6 | 680.4 | 1437.9 | 1116.9 | 1027.4 | 1071.4 |
| 900 | 370.6 | 322.0 | 1248.1 | 761.1 | 1374.1 | 1140.3 | 1090.5 | 1595.0 |
| 850 | 305.7 | 326.8 | 1223.7 | 760.3 | 1158.7 | 1119.8 | 995.4 | 1235.0 |
| 800 | 273.4 | 328.6 | 1034.6 | 723.6 | 1055.2 | 981.5 | 924.6 | 1175.8 |
| 750 | 255.4 | 338.5 | 879.6 | 722.1 | 1064.0 | 864.9 | 860.2 | 1082.2 |
| 700 | 236.1 | 311.8 | 723.2 | 701.8 | 1000.6 | 767.7 | 795.8 | 988.0 |
| 650 | 211.9 | 237.1 | 461.9 | 651.6 | 891.3 | 677.3 | 726.3 | 905.5 |
| 600 | 180.9 | 220.1 | 341.1 | 510.6 | 721.9 | 594.0 | 580.8 | 783.2 |
| 550 | 145.9 | 203.1 | 255.3 | 397.7 | 417.2 | 305.8 | 355.6 | 375.4 |
| 500 | 140.9 | 183.0 | 165.2 | 258.4 | 190.6 | 204.2 | 241.4 | 277.2 |
| 450 | 147.4 | 153.8 | 122.6 | 146.4 | 125.5 | 143.8 | 133.9 | 135.3 |
| 400 | 157.1 | 150.6 | 98.5 | 92.2 | 93.8 | 91.8 | 93.2 | 104.7 |
| 350 | 185.5 | 160.3 | 112.8 | 86.2 | 100.2 | 102.1 | 99.0 | 103.1 |
| 300 | | 177.0 | | 160.6 | | | | 139.5 |
| LONG | -98.27 | -96.72 | -90.95 | -90.07 | -89.75 | -89.46 | -89.17 | -88.91 |
| LAT | 59.34 | 56.47 | 37.87 | 32.94 | 30.96 | 28.99 | 26.96 | 24.99 |
| QUAL | 22 | 22 | 23 | 22 | 22 | 22 | 22 | 22 |

PASS 4654 AT FTMYRS, 63 9 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 72921 | 72946 | 73031 | 73141 | 73216 |
| 1000 | 0.110 | 0.121 | 0.123 | 0.127 | 0.117 |
| 950 | 0.119 | 0.130 | 0.132 | 0.134 | 0.126 |
| 900 | 0.125 | 0.134 | 0.138 | 0.140 | 0.129 |
| 850 | 0.129 | 0.141 | 0.145 | 0.144 | 0.135 |
| 800 | 0.134 | 0.148 | 0.151 | 0.149 | 0.140 |
| 750 | 0.141 | 0.155 | 0.158 | 0.154 | 0.146 |
| 700 | 0.149 | 0.163 | 0.166 | 0.165 | 0.152 |
| 650 | 0.159 | 0.171 | 0.175 | 0.177 | 0.160 |
| 600 | 0.170 | 0.181 | 0.186 | 0.185 | 0.171 |
| 550 | 0.187 | 0.199 | 0.203 | 0.202 | 0.190 |
| 500 | 0.217 | 0.233 | 0.242 | 0.248 | 0.318 |
| 450 | 0.297 | 0.306 | 0.334 | 0.363 | 0.515 |
| 400 | 0.470 | 0.558 | 0.533 | 0.842 | 0.883 |
| 350 | 1.006 | 1.099 | 0.998 | 1.531 | 1.553 |
| 300 | 1.794 | 1.805 | | 2.889 | 2.937 |
| HEIGHT | SCALE HEIGHT, KM | | | | |
| 950 | 1141.8 | 1461.6 | 1036.6 | 1657.6 | 1549.4 |
| 900 | 1249.3 | 1240.2 | 1077.5 | 1331.4 | 1816.0 |
| 850 | 1443.7 | 1060.4 | 1127.9 | 1551.9 | 1135.8 |
| 800 | 1153.0 | 1023.4 | 1105.2 | 1698.2 | 1302.0 |
| 750 | 967.0 | 1086.8 | 1060.6 | 1258.7 | 1201.1 |
| 700 | 869.2 | 1057.9 | 1001.5 | 922.0 | 1042.6 |
| 650 | 773.7 | 930.6 | 915.9 | 834.5 | 893.7 |
| 600 | 643.9 | 730.4 | 712.7 | 829.4 | 684.1 |
| 550 | 462.1 | 398.7 | 409.8 | 410.4 | 273.9 |
| 500 | 217.4 | 254.1 | 195.8 | 188.9 | 100.3 |
| 450 | 140.1 | 138.8 | 137.1 | 77.6 | 100.3 |
| 400 | 87.2 | 64.7 | 87.9 | 74.1 | 90.6 |
| 350 | 63.4 | 87.4 | 95.9 | 84.7 | 85.9 |
| 300 | 111.7 | 131.0 | | 73.9 | 70.2 |
| LONG | -87.55 | -87.40 | -87.15 | -86.77 | -86.58 |
| LAT | 13.06 | 11.65 | 9.10 | 5.14 | 3.15 |
| QUAL | 23 | 23 | 33 | 33 | 33 |

PASS 4654 AT QUITOE, 63 9 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 73104 | 73124 | 73147 | 73234 | 73309 | 74050 | 74143 |
| 1000 | 0.134 | 0.120 | 0.122 | 0.099 | 0.122 | 0.096 | 0.097 |
| 950 | 0.142 | 0.129 | 0.130 | 0.109 | 0.132 | 0.103 | 0.103 |
| 900 | 0.147 | 0.135 | 0.135 | 0.115 | 0.139 | 0.109 | 0.106 |
| 850 | 0.152 | 0.140 | 0.140 | 0.119 | 0.144 | 0.114 | 0.110 |
| 800 | 0.159 | 0.146 | 0.146 | 0.124 | 0.150 | 0.119 | 0.114 |
| 750 | 0.166 | 0.152 | 0.151 | 0.130 | 0.157 | 0.124 | 0.119 |
| 700 | 0.174 | 0.159 | 0.158 | 0.136 | 0.165 | 0.130 | 0.125 |
| 650 | 0.184 | 0.168 | 0.167 | 0.146 | 0.174 | 0.138 | 0.133 |
| 600 | 0.195 | 0.179 | 0.182 | 0.162 | 0.185 | 0.150 | 0.144 |
| 550 | 0.210 | 0.193 | 0.236 | 0.192 | 0.203 | 0.173 | 0.162 |
| 500 | 0.244 | 0.213 | 0.346 | 0.258 | 0.281 | 0.246 | 0.222 |
| 450 | 0.343 | 0.285 | 0.619 | 0.376 | 0.451 | 0.569 | 0.445 |
| 400 | 0.620 | 0.460 | 1.040 | 0.799 | 1.183 | 0.972 | 0.760 |
| 350 | 1.255 | 1.165 | 1.668 | 1.609 | | | |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 1259.6 | 1143.3 | 1178.0 | 748.0 | 815.5 | 942.6 | 2509.9 |
| 900 | 1491.9 | 1247.1 | 1461.0 | 1109.2 | 1200.6 | 1077.8 | 1390.2 |
| 850 | 1261.9 | 1200.4 | 1333.5 | 1329.2 | 1395.1 | 1124.1 | 1584.8 |
| 800 | 1146.5 | 1225.4 | 1269.4 | 1194.1 | 1206.3 | 1085.1 | 1274.0 |
| 750 | 1117.0 | 1123.9 | 1166.0 | 1075.5 | 1080.8 | 1118.1 | 1018.5 |
| 700 | 1011.0 | 978.6 | 1029.5 | 909.2 | 993.6 | 975.4 | 886.8 |
| 650 | 881.7 | 872.2 | 845.7 | 584.7 | 866.4 | 755.0 | 754.0 |
| 600 | 754.5 | 764.8 | 393.7 | 417.1 | 677.6 | 499.3 | 572.6 |
| 550 | 559.1 | 652.6 | 132.2 | 190.9 | 400.7 | 261.7 | 292.6 |
| 500 | 226.5 | 248.5 | 109.1 | 152.3 | 149.6 | 74.1 | 117.8 |
| 450 | 106.2 | 135.7 | 92.1 | 112.2 | 68.9 | 81.8 | 75.0 |
| 400 | 73.4 | 91.2 | 103.8 | 44.4 | 90.8 | 104.2 | 106.7 |
| 350 | 89.5 | 58.3 | 110.5 | 137.4 | | | |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -86.97 | -86.86 | -86.74 | -86.49 | -86.30 | -83.55 | -83.14 |
| LAT | 7.23 | 6.10 | 4.80 | 2.13 | 0.15 | -25.91 | -28.89 |
| QUAL | 33 | 32 | 33 | 32 | 33 | 32 | 22 |

PASS 4654 AT AGASTA, 63 9 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 74050 | 74125 | 74143 | 74404 | 74454 | 74532 | 74607 |
| 1000 | 0.098 | 0.114 | **0.107** | 0.084 | 0.094 | 0.093 | 0.111 |
| 950 | 0.106 | 0.120 | **0.112** | 0.088 | 0.099 | 0.099 | 0.116 |
| 900 | 0.114 | 0.123 | **0.117** | 0.092 | 0.104 | 0.103 | 0.120 |
| 850 | 0.121 | 0.127 | **0.120** | 0.094 | 0.108 | 0.107 | 0.124 |
| 800 | 0.129 | 0.132 | **0.124** | 0.097 | 0.113 | 0.112 | 0.129 |
| 750 | 0.137 | 0.137 | **0.129** | 0.101 | 0.119 | 0.118 | 0.134 |
| 700 | 0.148 | 0.144 | **0.135** | 0.106 | 0.126 | 0.127 | 0.140 |
| 650 | 0.162 | 0.152 | **0.142** | 0.113 | 0.139 | 0.139 | 0.147 |
| 600 | 0.190 | 0.172 | **0.152** | 0.122 | 0.161 | 0.155 | 0.158 |
| 550 | 0.256 | 0.213 | **0.181** | 0.138 | 0.204 | 0.195 | 0.184 |
| 500 | 0.434 | 0.303 | **0.267** | 0.172 | 0.287 | 0.276 | 0.267 |
| 450 | 0.702 | 0.512 | **0.469** | 0.277 | 0.477 | 0.451 | 0.437 |
| 400 | 1.111 | 0.968 | **0.759** | 0.639 | 0.800 | 0.751 | 0.713 |
| 350 | | | **1.028** | 0.984 | 1.178 | 1.090 | 1.055 |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 664.9 | 1619.8 | **1122.8** | 1368.4 | 908.0 | 989.6 | 1305.4 |
| 900 | 742.0 | 1561.7 | **1464.5** | 1631.4 | 1280.2 | 1377.3 | 1464.4 |
| 850 | 809.6 | 1343.7 | **1585.2** | 1955.3 | 1279.1 | 1217.7 | 1533.2 |
| 800 | 785.3 | 1446.4 | **1465.5** | 1558.0 | 1069.1 | 1009.6 | 1495.3 |
| 750 | 723.7 | 1215.1 | **1249.8** | 1111.8 | 909.8 | 808.4 | 1289.3 |
| 700 | 643.1 | 1024.6 | **1025.3** | 938.3 | 671.0 | 678.8 | 1035.5 |
| 650 | 454.4 | 707.8 | **864.5** | 720.9 | 424.5 | 536.7 | 872.4 |
| 600 | 214.0 | 206.8 | **573.2** | 527.7 | 281.7 | 349.4 | 589.1 |
| 550 | 133.4 | 212.6 | **197.8** | 322.6 | 176.5 | 170.9 | 189.6 |
| 500 | 98.1 | 109.9 | **91.2** | 148.9 | 122.4 | 120.4 | 116.3 |
| 450 | 105.3 | 94.4 | **87.7** | 65.0 | 92.3 | 98.3 | 100.9 |
| 400 | 127.1 | 119.7 | **120.6** | 88.9 | 112.3 | 111.0 | 112.2 |
| 350 | | | **415.1** | 130.3 | 319.9 | 220.2 | 216.0 |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -83.55 | -83.28 | **-83.14** | -81.85 | -81.30 | -80.82 | -80.37 |
| LAT | -25.91 | -27.87 | **-28.89** | -36.78 | -39.57 | -41.68 | -43.62 |
| QUAL | 32 | 32 | **31** | 22 | 32 | 31 | 21 |

PASS 4654 AT AGASTA, 63 9 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 74813 | 74848 | 74923 | 74957 | 75033 | 75109 | 75144 |
| 1000 | 0.133 | 0.130 | 0.144 | 0.133 | 0.137 | 0.093 | 0.078 |
| 950 | 0.138 | 0.136 | 0.148 | 0.138 | 0.142 | 0.098 | 0.082 |
| 900 | 0.145 | 0.141 | 0.155 | 0.147 | 0.148 | 0.105 | 0.088 |
| 850 | 0.153 | 0.147 | 0.163 | 0.154 | 0.156 | 0.113 | 0.094 |
| 800 | 0.161 | 0.154 | 0.171 | 0.163 | 0.165 | 0.120 | 0.101 |
| 750 | 0.170 | 0.162 | 0.179 | 0.172 | 0.177 | 0.130 | 0.108 |
| 700 | 0.180 | 0.172 | 0.188 | 0.182 | 0.190 | 0.141 | 0.115 |
| 650 | 0.192 | 0.183 | 0.198 | 0.193 | 0.208 | 0.154 | 0.124 |
| 600 | 0.206 | 0.196 | 0.211 | 0.206 | 0.232 | 0.172 | 0.138 |
| 550 | 0.227 | 0.218 | 0.228 | 0.222 | 0.273 | 0.203 | 0.161 |
| 500 | 0.261 | 0.272 | 0.288 | 0.261 | 0.380 | 0.264 | 0.202 |
| 450 | 0.375 | 0.410 | 0.439 | 0.400 | 0.583 | 0.409 | 0.306 |
| 400 | 0.664 | 0.688 | 0.717 | 0.680 | 0.932 | 0.676 | 0.539 |
| 350 | 1.114 | 1.148 | 1.144 | 1.110 | 1.388 | 1.112 | 0.902 |
| 300 | | | | | | | 1.170 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 1143.9 | 1284.1 | 1422.0 | 1247.1 | 1362.3 | 826.9 | 805.8 |
| 900 | 1019.2 | 1408.7 | 1120.2 | 981.5 | 1069.0 | 761.5 | 754.0 |
| 850 | 965.3 | 1158.8 | 1042.7 | 978.0 | 928.3 | 727.9 | 746.8 |
| 800 | 941.0 | 991.1 | 1026.9 | 927.6 | 818.0 | 693.0 | 764.9 |
| 750 | 897.5 | 926.1 | 1070.5 | 882.8 | 718.1 | 631.4 | 777.6 |
| 700 | 821.7 | 834.1 | 1011.0 | 861.1 | 625.0 | 587.4 | 719.4 |
| 650 | 729.3 | 746.3 | 872.8 | 811.3 | 517.9 | 519.2 | 570.3 |
| 600 | 622.0 | 616.3 | 724.5 | 729.1 | 385.5 | 388.6 | 381.9 |
| 550 | 442.5 | 324.2 | 424.8 | 536.5 | 225.7 | 251.4 | 274.0 |
| 500 | 265.1 | 171.7 | 172.9 | 205.3 | 133.3 | 140.2 | 180.2 |
| 450 | 109.6 | 102.6 | 105.7 | 97.9 | 109.5 | 110.0 | 105.1 |
| 400 | 88.4 | 91.7 | 99.1 | 89.8 | 111.0 | 93.6 | 89.9 |
| 350 | 114.4 | 119.3 | 137.1 | 122.1 | 187.5 | 127.6 | 120.5 |
| 300 | | | | | | | 749.3 |
| LONG | -78.33 | -77.63 | -76.84 | -76.02 | -74.99 | -73.88 | -72.62 |
| LAT | -50.56 | -52.48 | -54.39 | -56.23 | -58.17 | -60.10 | -61.96 |
| QUAL | 12 | 12 | 31 | 22 | 31 | 11 | 21 |

PASS 4654 AT SOLANT, 63 9 5

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 74438 | 74509 | 74548 | 74719 | 74755 | 74835 | 74905 | 74940 |
| 1000 | 0.101 | 0.120 | 0.102 | 0.162 | 0.152 | 0.140 | 0.151 | 0.151 |
| 950 | 0.105 | 0.127 | 0.106 | 0.170 | 0.159 | 0.145 | 0.158 | 0.162 |
| 900 | 0.110 | 0.131 | 0.110 | 0.177 | 0.166 | 0.151 | 0.166 | 0.171 |
| 850 | 0.114 | 0.136 | 0.113 | 0.184 | 0.175 | 0.156 | 0.175 | 0.180 |
| 800 | 0.118 | 0.140 | 0.117 | 0.191 | 0.184 | 0.165 | 0.182 | 0.189 |
| 750 | 0.124 | 0.148 | 0.122 | 0.199 | 0.193 | 0.174 | 0.190 | 0.199 |
| 700 | 0.131 | 0.163 | 0.128 | 0.207 | 0.202 | 0.185 | 0.200 | 0.209 |
| 650 | 0.147 | 0.186 | 0.136 | 0.218 | 0.212 | 0.198 | 0.211 | 0.222 |
| 600 | 0.178 | 0.231 | 0.149 | 0.237 | 0.228 | 0.217 | 0.228 | 0.244 |
| 550 | 0.238 | 0.311 | 0.171 | 0.287 | 0.253 | 0.247 | 0.271 | 0.280 |
| 500 | 0.372 | 0.455 | 0.240 | 0.378 | 0.317 | 0.319 | 0.357 | 0.366 |
| 450 | 0.591 | 0.719 | 0.387 | 0.548 | 0.507 | 0.475 | 0.525 | 0.544 |
| 400 | 0.932 | 1.054 | 0.681 | 0.874 | 0.873 | 0.778 | 0.832 | 0.860 |
| 350 | | | 1.088 | 1.220 | 1.232 | 1.238 | 1.282 | 1.268 |
| 300 | | | | | | 1.534 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 1364.7 | 1239.2 | 1351.6 | 1186.7 | 1147.8 | 1485.3 | 1074.8 | 808.5 |
| 900 | 1297.8 | 1484.3 | 1633.0 | 1298.4 | 1041.8 | 1310.5 | 1017.9 | 933.6 |
| 850 | 1311.9 | 1538.7 | 1625.3 | 1277.2 | 1001.3 | 1193.3 | 1049.3 | 1071.0 |
| 800 | 1190.7 | 1232.7 | 1385.2 | 1279.1 | 1025.0 | 1033.6 | 1208.3 | 1011.7 |
| 750 | 1011.3 | 790.6 | 1114.9 | 1298.5 | 1080.7 | 899.0 | 1119.9 | 972.0 |
| 700 | 743.8 | 444.2 | 892.1 | 1054.4 | 1044.6 | 779.5 | 968.1 | 922.1 |
| 650 | 324.4 | 295.4 | 679.5 | 813.7 | 842.0 | 644.9 | 781.4 | 755.4 |
| 600 | 195.5 | 206.6 | 505.7 | 386.5 | 632.2 | 455.8 | 496.4 | 414.2 |
| 550 | 143.5 | 151.4 | 235.1 | 213.2 | 325.6 | 334.4 | 221.8 | 291.5 |
| 500 | 111.3 | 123.5 | 119.6 | 166.2 | 182.5 | 151.7 | 154.6 | 146.8 |
| 450 | 107.3 | 113.0 | 95.9 | 116.0 | 89.7 | 107.5 | 117.1 | 118.9 |
| 400 | 125.9 | 174.6 | 89.8 | 165.8 | 117.6 | 99.1 | 105.8 | 112.1 |
| 350 | | | 183.0 | 469.4 | 186.8 | 141.9 | 141.9 | 172.4 |
| 300 | | | | | | 786.1 | | |
| LONG | -81.47 | -81.12 | -80.62 | -79.28 | -78.67 | -77.89 | -77.27 | -76.43 |
| LAT | -38.68 | -40.40 | -42.56 | -47.59 | -49.57 | -51.77 | -53.41 | -55.31 |
| QUAL | 32 | 32 | 32 | 32 | 31 | 31 | 31 | 31 |

PASS 4654 AT SOLANT, 63 9 5

ELECTRON DENSITY IN ELECTRONS PER CC (X.C-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 75010 | 75050 | 75125 | 75200 | 75236 | 75311 |
| 1000 | 0.143 | 0.113 | 0.098 | 0.079 | 0.058 | 0.047 |
| 950 | 0.148 | 0.119 | 0.103 | 0.083 | 0.062 | 0.051 |
| 900 | 0.154 | 0.124 | 0.109 | 0.088 | 0.066 | 0.054 |
| 850 | 0.162 | 0.132 | 0.115 | 0.091 | 0.071 | 0.059 |
| 800 | 0.171 | 0.141 | 0.123 | 0.096 | 0.076 | 0.064 |
| 750 | 0.181 | 0.150 | 0.131 | 0.101 | 0.082 | 0.070 |
| 700 | 0.193 | 0.159 | 0.141 | 0.108 | 0.089 | 0.077 |
| 650 | 0.208 | 0.171 | 0.155 | 0.120 | 0.097 | 0.085 |
| 600 | 0.234 | 0.191 | 0.179 | 0.138 | 0.109 | 0.096 |
| 550 | 0.282 | 0.228 | 0.218 | 0.168 | 0.129 | 0.113 |
| 500 | 0.380 | 0.307 | 0.302 | 0.228 | 0.167 | 0.145 |
| 450 | 0.577 | 0.461 | 0.454 | 0.344 | 0.242 | 0.216 |
| 400 | 0.921 | 0.789 | 0.752 | 0.581 | 0.387 | 0.342 |
| 350 | 1.347 | 1.243 | 1.149 | 0.879 | 0.681 | 0.561 |
| 300 | | | | | | 0.803 |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 1298.3 | 1047.0 | 964.8 | 959.5 | 751.8 | 699.6 |
| 900 | 1118.7 | 956.4 | 906.0 | 1097.0 | 764.5 | 650.0 |
| 850 | 971.8 | 844.8 | 844.3 | 1136.9 | 771.9 | 591.2 |
| 800 | 905.5 | 776.2 | 791.1 | 1016.9 | 708.2 | 586.8 |
| 750 | 827.1 | 816.7 | 729.3 | 786.8 | 649.0 | 567.8 |
| 700 | 747.3 | 794.2 | 607.9 | 632.6 | 582.8 | 514.7 |
| 650 | 580.8 | 597.1 | 432.7 | 415.9 | 493.8 | 457.7 |
| 600 | 342.3 | 345.9 | 308.1 | 309.1 | 353.8 | 373.9 |
| 550 | 209.6 | 229.9 | 202.5 | 209.9 | 263.1 | 258.9 |
| 500 | 151.8 | 148.7 | 141.4 | 142.1 | 157.6 | 155.0 |
| 450 | 107.4 | 102.1 | 108.5 | 103.9 | 121.8 | 120.0 |
| 400 | 120.0 | 94.7 | 98.8 | 104.2 | 89.8 | 97.9 |
| 350 | 158.5 | 128.4 | 164.0 | 145.4 | 109.2 | 116.7 |
| 300 | | | | | | 289.1 |
| LONG | -75.66 | -74.50 | -73.31 | -72.04 | -70.40 | -68.65 |
| LAT | -56.93 | -59.08 | -60.95 | -62.81 | -64.69 | -66.50 |
| QUAL | 31 | 31 | 21 | 32 | 21 | 31 |

PASS 4681 AT RESLUT, 63 9 7

ELECTRON DENSITY IN ELECTRONS PER CC (X1C-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 63548 | 63830 | 63905 | 63923 | 63941 | 63958 | 64016 | 64033 |
| 1000 | 0.059 | 0.059 | 0.051 | 0.052 | 0.048 | 0.027 | 0.036 | 0.022 |
| 950 | 0.070 | 0.070 | 0.061 | 0.063 | 0.059 | 0.035 | 0.042 | 0.029 |
| 900 | 0.083 | 0.085 | 0.072 | 0.073 | 0.071 | 0.042 | 0.050 | 0.036 |
| 850 | 0.099 | 0.104 | 0.088 | 0.089 | 0.084 | 0.051 | 0.059 | 0.045 |
| 800 | 0.118 | 0.125 | 0.108 | 0.108 | 0.102 | 0.062 | 0.072 | 0.056 |
| 750 | 0.143 | 0.155 | 0.133 | 0.133 | 0.127 | 0.075 | 0.091 | 0.073 |
| 700 | 0.175 | 0.193 | 0.167 | 0.165 | 0.158 | 0.095 | 0.117 | 0.096 |
| 650 | 0.220 | 0.243 | 0.216 | 0.208 | 0.200 | 0.128 | 0.155 | 0.132 |
| 600 | 0.280 | 0.312 | 0.292 | 0.274 | 0.269 | 0.178 | 0.213 | 0.186 |
| 550 | 0.366 | 0.408 | 0.418 | 0.366 | 0.384 | 0.261 | 0.312 | 0.279 |
| 500 | 0.491 | 0.549 | 0.606 | 0.508 | 0.550 | 0.391 | 0.478 | 0.447 |
| 450 | 0.668 | 0.745 | 0.893 | 0.709 | 0.798 | 0.618 | 0.741 | 0.704 |
| 400 | 0.947 | 1.049 | 1.343 | 1.024 | 1.186 | 0.972 | 1.136 | 1.097 |
| 350 | 1.373 | 1.490 | 1.957 | 1.500 | 1.790 | 1.470 | 1.668 | 1.686 |
| 300 | 2.053 | 2.084 | 2.605 | 2.189 | | 2.200 | 2.287 | 2.269 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 286.8 | 272.6 | 283.5 | 327.4 | 276.4 | 259.1 | 324.5 | 203.1 |
| 900 | 286.6 | 252.4 | 270.8 | 299.2 | 287.2 | 280.1 | 286.6 | 227.1 |
| 850 | 281.9 | 248.1 | 250.8 | 248.7 | 267.4 | 259.8 | 268.8 | 223.1 |
| 800 | 270.8 | 247.0 | 235.3 | 250.0 | 245.1 | 256.7 | 230.6 | 205.1 |
| 750 | 252.5 | 236.6 | 224.9 | 234.0 | 227.7 | 236.0 | 209.8 | 187.8 |
| 700 | 234.5 | 225.2 | 209.0 | 215.8 | 215,6 | 186.1 | 190.2 | 172.0 |
| 650 | 216.7 | 210.2 | 184.7 | 200.2 | 196.3 | 162.7 | 172.0 | 155.5 |
| 600 | 199.7 | 192.8 | 154.9 | 183.5 | 156.3 | 142.0 | 144.9 | 137.4 |
| 550 | 183.5 | 177.3 | 137.5 | 166.6 | 138.6 | 130.1 | 127.5 | 116.0 |
| 500 | 169.3 | 170.3 | 131.6 | 156.7 | 138.2 | 120.6 | 118.1 | 108.5 |
| 450 | 156.2 | 159.6 | 128.1 | 146.0 | 132.1 | 110.2 | 116.6 | 112.4 |
| 400 | 140.7 | 145.4 | 127.6 | 134.6 | 125.5 | 116.6 | 124.0 | 115.2 |
| 350 | 132.6 | 146.5 | 148.8 | 128.9 | 126.1 | 121.8 | 140.1 | 129.1 |
| 300 | 124.6 | 163.8 | 300.3 | 211.8 | | 138.4 | 220.6 | 318.9 |
| LONG | -172.07 | -126.36 | -119.50 | -117.01 | -114.52 | -112.17 | -110.32 | -108.64 |
| LAT | 80.36 | 77.47 | 76.16 | 75.38 | 74.60 | 73.87 | 73.02 | 72.21 |
| QUAL | 22 | 22 | 22 | 22 | 22 | 23 | 22 | 21 |

PASS 4681 AT RESLUT, 63 9 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 64051 | 64108 | 64126 | 64144 | 64219 | 64236 | 64254 | 64607 |
| 1000 | 0.019 | 0.024 | 0.018 | 0.007 | 0.010 | 0.006 | 0.006 | 0.006 |
| 950 | 0.025 | 0.031 | 0.023 | 0.011 | 0.015 | 0.008 | 0.009 | 0.008 |
| 900 | 0.031 | 0.037 | 0.029 | 0.014 | 0.019 | 0.010 | 0.010 | 0.010 |
| 850 | 0.039 | 0.048 | 0.037 | 0.018 | 0.024 | 0.013 | 0.013 | 0.012 |
| 800 | 0.050 | 0.063 | 0.047 | 0.025 | 0.030 | 0.018 | 0.018 | 0.014 |
| 750 | 0.066 | 0.081 | 0.061 | 0.034 | 0.040 | 0.025 | 0.026 | 0.018 |
| 700 | 0.087 | 0.103 | 0.082 | 0.048 | 0.055 | 0.035 | 0.037 | 0.023 |
| 650 | 0.119 | 0.132 | 0.113 | 0.071 | 0.078 | 0.051 | 0.053 | 0.031 |
| 600 | 0.171 | 0.183 | 0.160 | 0.100 | 0.114 | 0.079 | 0.080 | 0.042 |
| 550 | 0.254 | 0.275 | 0.230 | 0.151 | 0.173 | 0.120 | 0.125 | 0.056 |
| 500 | 0.393 | 0.434 | 0.359 | 0.240 | 0.282 | 0.199 | 0.202 | 0.075 |
| 450 | 0.628 | 0.687 | 0.578 | 0.425 | 0.465 | 0.336 | 0.333 | 0.109 |
| 400 | 0.995 | 1.093 | 0.924 | 0.705 | 0.751 | 0.556 | 0.565 | 0.165 |
| 350 | 1.534 | 1.778 | 1.443 | 1.098 | 1.152 | 0.871 | 0.897 | 0.269 |
| 300 | 2.341 | 2.620 | 2.144 | 1.745 | 1.628 | 1.295 | 1.293 | 0.406 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 216.6 | 252.5 | 211.7 | 190.7 | 198.4 | 282.5 | 241.8 | 255.4 |
| 900 | 217.7 | 225.0 | 210.4 | 181.5 | 201.5 | 222.4 | 243.3 | 216.6 |
| 850 | 207.3 | 205.5 | 203.4 | 173.0 | 202.0 | 178.5 | 183.6 | 278.8 |
| 800 | 192.1 | 190.4 | 197.7 | 162.2 | 189.8 | 159.3 | 150.4 | 264.0 |
| 750 | 180.1 | 191.2 | 182.1 | 151.6 | 163.8 | 148.4 | 143.4 | 211.9 |
| 700 | 170.1 | 192.0 | 166.1 | 141.0 | 153.2 | 137.6 | 137.1 | 178.7 |
| 650 | 154.7 | 183.0 | 152.4 | 138.0 | 142.7 | 126.2 | 130.3 | 171.2 |
| 600 | 135.4 | 140.4 | 140.4 | 135.6 | 132.3 | 119.7 | 121.0 | 167.2 |
| 550 | 125.9 | 117.3 | 129.1 | 120.3 | 112.6 | 113.1 | 109.8 | 164.3 |
| 500 | 107.8 | 109.4 | 108.9 | 97.2 | 103.0 | 97.3 | 106.1 | 136.5 |
| 450 | 108.8 | 110.1 | 108.2 | 91.3 | 103.3 | 98.2 | 95.3 | 136.5 |
| 400 | 112.4 | 105.8 | 109.2 | 105.6 | 111.4 | 107.3 | 102.5 | 107.7 |
| 350 | 118.4 | 113.7 | 120.5 | 110.8 | 131.3 | 116.0 | 120.5 | 111.8 |
| 300 | 140.0 | 143.6 | 153.1 | 121.0 | 172.8 | 195.5 | 209.7 | 132.8 |
| LONG | -106.67 | -105.40 | -104.07 | -102.75 | -100.57 | -99.67 | -98.73 | -92.08 |
| LAT | 71.35 | 70.52 | 69.62 | 68.72 | 66.94 | 66.05 | 65.12 | 54.78 |
| QUAL | 21 | 21 | 21 | 21 | 11 | 23 | 22 | 23 |

PASS 4681 AT RESLUT, 63 9 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 64625 | 64643 | 64704 |
| 1000 | 0.007 | 0.008 | 0.008 |
| 950 | 0.010 | 0.010 | 0.010 |
| 900 | 0.012 | 0.011 | 0.011 |
| 850 | 0.015 | 0.013 | 0.012 |
| 800 | 0.020 | 0.017 | 0.013 |
| 750 | 0.026 | 0.022 | 0.015 |
| 700 | 0.034 | 0.030 | 0.018 |
| 650 | 0.045 | 0.040 | 0.021 |
| 600 | 0.062 | 0.055 | 0.025 |
| 550 | 0.087 | 0.077 | 0.031 |
| 500 | 0.128 | 0.113 | 0.039 |
| 450 | 0.189 | 0.169 | 0.049 |
| 400 | 0.283 | | 0.063 |
| 350 | 0.406 | | 0.083 |
| 300 | 0.520 | | 0.111 |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 280.1 | 355.9 | 546.8 |
| 900 | 226.6 | 378.9 | 660.9 |
| 850 | 205.7 | 265.8 | 543.7 |
| 800 | 200.9 | 200.5 | 457.3 |
| 750 | 196.2 | 184.9 | 375.1 |
| 700 | 183.5 | 172.9 | 297.4 |
| 650 | 164.5 | 164.2 | 277.2 |
| 600 | 152.3 | 153.6 | 260.5 |
| 550 | 141.6 | 141.9 | 244.1 |
| 500 | 134.4 | 131.3 | 228.2 |
| 450 | 130.0 | 118.6 | 212.3 |
| 400 | 135.2 | | 196.3 |
| 350 | 172.4 | | 180.0 |
| 300 | 264.9 | | 163.1 |
| LONG | -91.68 | -91.28 | -90.82 |
| LAT | 53.79 | 52.80 | 51.65 |
| QUAL | 21 | 23 | 33 |

PASS 4661 AT OTTAWA, 63 9 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 64906 | 64924 | 64959 | 65047 | 65126 | 65202 | 65237 | 65302 |
| 1000 | 0.015 | 0.016 | 0.031 | 0.056 | 0.070 | 0.082 | 0.089 | 0.099 |
| 950 | 0.018 | 0.020 | 0.036 | 0.060 | 0.078 | 0.090 | 0.096 | 0.106 |
| 900 | 0.019 | 0.021 | 0.037 | 0.063 | 0.081 | 0.094 | 0.100 | 0.112 |
| 850 | 0.020 | 0.022 | 0.040 | 0.066 | 0.085 | 0.098 | 0.105 | 0.119 |
| 800 | 0.022 | 0.024 | 0.044 | 0.069 | 0.088 | 0.103 | 0.111 | 0.127 |
| 750 | 0.025 | 0.027 | 0.047 | 0.072 | 0.093 | 0.109 | 0.118 | 0.136 |
| 700 | 0.028 | 0.029 | 0.052 | 0.076 | 0.098 | 0.117 | 0.126 | 0.145 |
| 650 | 0.033 | 0.033 | 0.057 | 0.081 | 0.104 | 0.127 | 0.136 | 0.156 |
| 600 | 0.040 | 0.040 | 0.067 | 0.089 | 0.113 | 0.142 | 0.150 | 0.171 |
| 550 | 0.050 | 0.050 | 0.081 | 0.099 | 0.125 | 0.164 | 0.172 | 0.199 |
| 500 | 0.063 | 0.064 | 0.108 | 0.119 | 0.148 | 0.208 | 0.216 | 0.258 |
| 450 | 0.083 | 0.084 | 0.169 | 0.157 | 0.209 | 0.310 | 0.310 | 0.383 |
| 400 | 0.115 | 0.119 | 0.292 | 0.265 | 0.351 | 0.527 | 0.550 | 0.670 |
| 350 | 0.165 | 0.181 | 0.545 | 0.515 | 0.746 | 0.908 | 1.000 | |
| 300 | 0.238 | 0.290 | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 689.8 | 520.8 | 977.7 | 1015.3 | 1002.6 | 1118.6 | 1150.7 | 1041.9 |
| 900 | 894.7 | 1144.2 | 985.3 | 1104.4 | 1294.7 | 1222.9 | 1077.9 | 864.2 |
| 850 | 672.9 | 838.1 | 685.7 | 1030.6 | 1170.2 | 1027.8 | 985.1 | 784.6 |
| 800 | 542.4 | 700.8 | 596.2 | 1056.9 | 1075.3 | 899.5 | 896.2 | 791.7 |
| 750 | 425.6 | 563.3 | 575.4 | 1041.7 | 1007.8 | 814.4 | 785.1 | 781.8 |
| 700 | 339.4 | 443.8 | 506.2 | 846.8 | 873.4 | 695.6 | 699.8 | 717.0 |
| 650 | 288.7 | 360.6 | 413.6 | 678.2 | 724.6 | 536.1 | 588.2 | 612.8 |
| 600 | 252.4 | 248.0 | 293.2 | 533.7 | 572.4 | 395.2 | 436.2 | 439.6 |
| 550 | 229.7 | 211.7 | 245.3 | 362.3 | 412.2 | 285.7 | 304.8 | 251.1 |
| 500 | 208.6 | 192.2 | 108.1 | 236.9 | 208.9 | 168.9 | 174.6 | 164.4 |
| 450 | 167.5 | 164.3 | 112.0 | 124.8 | 115.5 | 108.1 | 113.8 | 106.9 |
| 400 | 148.8 | 134.2 | 88.7 | 91.8 | 79.2 | 87.7 | 81.6 | 83.2 |
| 350 | 140.7 | 113.1 | 86.8 | 62.2 | 83.7 | 117.2 | 100.1 | |
| 300 | 151.1 | 116.5 | | | | | | |
| LONG | -88.73 | -88.48 | -87.99 | -87.42 | -87.01 | -86.66 | -86.30 | -86.04 |
| LAT | 44.90 | 43.89 | 41.95 | 39.26 | 37.07 | 35.06 | 33.09 | 31.68 |
| QUAL | 22 | 23 | 23 | 12 | 12 | 13 | 12 | 22 |

PASS 4681 AT OTTAWA, 63 9 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 65347 | 65457 | 65532 | 65608 |
| 1000 | 0.109 | 0.116 | 0.113 | 0.114 |
| 950 | 0.116 | 0.123 | 0.121 | 0.121 |
| 900 | 0.123 | 0.127 | 0.125 | 0.125 |
| 850 | 0.130 | 0.130 | 0.130 | 0.128 |
| 800 | 0.138 | 0.136 | 0.136 | 0.134 |
| 750 | 0.147 | 0.141 | 0.143 | 0.140 |
| 700 | 0.156 | 0.146 | 0.150 | 0.147 |
| 650 | 0.167 | 0.153 | 0.160 | 0.156 |
| 600 | 0.182 | 0.164 | 0.174 | 0.169 |
| 550 | 0.209 | 0.184 | 0.197 | 0.201 |
| 500 | 0.261 | 0.234 | 0.246 | 0.267 |
| 450 | 0.374 | 0.353 | 0.368 | 0.407 |
| 400 | 0.684 | 0.614 | | 0.693 |
| 350 | | | | 1.125 |
| 300 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | |
|---|---|---|---|---|
| 950 | 784.0 | 1491.1 | 1152.1 | 1311.9 |
| 900 | 931.9 | 2130.6 | 1815.6 | 1873.4 |
| 850 | 864.1 | 1632.6 | 1200.1 | 1420.6 |
| 800 | 821.3 | 1336.3 | 1032.6 | 1194.7 |
| 750 | 835.9 | 1332.7 | 975.6 | 1013.0 |
| 700 | 807.0 | 1233.8 | 881.5 | 876.6 |
| 650 | 685.1 | 929.9 | 714.0 | 746.3 |
| 600 | 462.2 | 631.2 | 515.1 | 501.5 |
| 550 | 297.2 | 236.2 | 302.7 | 217.4 |
| 500 | 184.7 | 164.8 | 181.5 | 147.8 |
| 450 | 112.2 | 101.3 | 95.8 | 108.3 |
| 400 | 73.5 | 84.2 | | 82.2 |
| 350 | | | | 156.2 |
| 300 | | | | |

| | | | | |
|---|---|---|---|---|
| LONG | -85.67 | -85.12 | -84.87 | -84.62 |
| LAT | 29.15 | 25.20 | 23.22 | 21.19 |
| QUAL | 22 | 22 | 23 | 32 |

PASS 4681 AT QUITOE, 63 9 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 65854 | 65913 | 65930 | 70208 | 70226 | 70301 | 70354 | 70429 |
| 1000 | 0.103 | | 0.109 | 0.132 | 0.091 | 0.135 | 0.124 | 0.121 |
| 950 | 0.114 | | 0.118 | 0.142 | 0.098 | 0.148 | 0.133 | 0.132 |
| 900 | 0.121 | | 0.124 | 0.148 | 0.104 | 0.157 | 0.140 | 0.139 |
| 850 | 0.127 | | 0.127 | 0.152 | 0.108 | 0.161 | 0.145 | 0.146 |
| 800 | 0.131 | | 0.134 | 0.162 | 0.112 | 0.168 | 0.151 | 0.153 |
| 750 | 0.137 | | 0.140 | 0.168 | 0.118 | 0.182 | 0.159 | 0.162 |
| 700 | 0.144 | | 0.149 | 0.177 | 0.126 | 0.202 | 0.170 | 0.175 |
| 650 | 0.151 | | 0.159 | 0.192 | 0.139 | 0.221 | 0.187 | 0.193 |
| 600 | 0.161 | | 0.176 | 0.222 | 0.159 | 0.263 | 0.214 | 0.219 |
| 550 | 0.177 | | 0.219 | 0.275 | 0.193 | 0.333 | 0.261 | 0.261 |
| 500 | 0.209 | | 0.316 | 0.383 | 0.255 | 0.459 | 0.337 | 0.326 |
| 450 | 0.299 | | 0.492 | 0.579 | 0.378 | 0.639 | 0.529 | 0.449 |
| 400 | 0.508 | | 0.779 | 0.933 | 0.616 | 0.871 | 0.831 | 0.653 |
| 350 | | | 1.221 | 1.460 | 1.024 | 1.156 | 1.174 | 0.919 |
| 300 | | | | | | 1.702 | 1.493 | 1.276 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 805.5 | | 857.2 | 1042.3 | 793.5 | 1061.4 | 1014.8 | 928.6 |
| 900 | 958.8 | | 1639.0 | 1922.5 | 1115.3 | 1247.2 | 1265.0 | 1154.3 |
| 850 | 1578.8 | | 1692.5 | 1307.4 | 1305.7 | 1468.8 | 1251.9 | 1036.0 |
| 800 | 1292.9 | | 981.0 | 1071.5 | 1130.9 | 1060.9 | 1062.3 | 990.3 |
| 750 | 1107.4 | | 956.0 | 1166.1 | 891.1 | 578.8 | 892.6 | 765.1 |
| 700 | 1032.9 | | 811.7 | 775.8 | 631.2 | 496.1 | 660.7 | 571.9 |
| 650 | 892.3 | | 644.8 | 466.4 | 453.3 | 423.6 | 449.8 | 442.7 |
| 600 | 694.9 | | 366.9 | 301.9 | 323.7 | 259.3 | 305.8 | 344.8 |
| 550 | 418.1 | | 169.2 | 189.5 | 228.9 | 166.8 | 230.5 | 270.3 |
| 500 | 214.6 | | 125.0 | 140.6 | 156.7 | 150.9 | 170.7 | 200.7 |
| 450 | 96.0 | | 106.5 | 109.7 | 113.3 | 152.9 | 108.1 | 134.0 |
| 400 | 71.2 | | 112.7 | 114.7 | 89.6 | 154.8 | 128.5 | 140.0 |
| 350 | | | 112.6 | 100.4 | 124.3 | 156.8 | 169.6 | 148.4 |
| 300 | | | | | | 84.8 | 258.6 | 162.2 |
| LONG | -83.60 | -83.50 | -83.40 | -82.55 | -82.46 | -82.27 | -81.99 | -81.80 |
| LAT | 11.80 | 10.73 | 9.76 | 0.82 | -0.20 | -2.18 | -5.18 | -7.16 |
| QUAL | 31 | 31 | 31 | 31 | 32 | 31 | 31 | 31 |

PASS 4681 AT QUITOE, 63 9 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 70504 | 70539 |
| 1000 | 0.121 | 0.089 |
| 950 | 0.135 | 0.102 |
| 900 | 0.144 | 0.111 |
| 850 | 0.151 | 0.116 |
| 800 | 0.159 | 0.123 |
| 750 | 0.170 | 0.136 |
| 700 | 0.184 | 0.154 |
| 650 | 0.203 | 0.170 |
| 600 | 0.234 | 0.195 |
| 550 | 0.282 | 0.235 |
| 500 | 0.353 | 0.312 |
| 450 | 0.459 | 0.460 |
| 400 | 0.691 | 0.723 |
| 350 | 1.042 | 1.120 |
| 300 | 1.583 | 1.703 |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 656.4 | 503.2 |
| 900 | 975.5 | 887.5 |
| 850 | 986.1 | 905.3 |
| 800 | 816.7 | 722.6 |
| 750 | 706.7 | 559.4 |
| 700 | 582.7 | 473.0 |
| 650 | 438.2 | 435.8 |
| 600 | 314.5 | 324.4 |
| 550 | 247.0 | 227.7 |
| 500 | 208.6 | 152.0 |
| 450 | 163.6 | 122.2 |
| 400 | 118.5 | 112.3 |
| 350 | 121.9 | 116.3 |
| 300 | 142.8 | 164.4 |

| | | |
|---|---|---|
| LONG | -81.61 | -81.42 |
| LAT | -9.15 | -11.12 |
| QUAL | 31 | 31 |

PASS 4681 AT SOLANT, 63 9 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 71226 | 71302 | 71319 | 71354 | 71429 | 71505 | 71540 |
| 1000 | 0.131 | 0.140 | 0.145 | 0.145 | 0.130 | 0.144 | 0.156 |
| 950 | 0.140 | 0.148 | 0.153 | 0.154 | 0.136 | 0.151 | 0.162 |
| 900 | 0.147 | 0.153 | 0.161 | 0.161 | 0.141 | 0.154 | 0.166 |
| 850 | 0.153 | 0.159 | 0.166 | 0.162 | 0.146 | 0.158 | 0.171 |
| 800 | 0.161 | 0.165 | 0.172 | 0.166 | 0.149 | 0.164 | 0.177 |
| 750 | 0.170 | 0.172 | 0.177 | 0.176 | 0.154 | 0.170 | 0.183 |
| 700 | 0.181 | 0.183 | 0.185 | 0.185 | 0.160 | 0.179 | 0.191 |
| 650 | 0.196 | 0.206 | 0.198 | 0.206 | 0.167 | 0.189 | 0.200 |
| 600 | 0.232 | 0.247 | 0.228 | 0.246 | 0.177 | 0.203 | 0.209 |
| 550 | 0.310 | 0.320 | 0.276 | 0.327 | 0.193 | 0.232 | 0.266 |
| 500 | 0.440 | 0.440 | 0.354 | 0.487 | 0.229 | 0.295 | 0.319 |
| 450 | 0.662 | 0.655 | 0.498 | 0.708 | 0.324 | 0.426 | 0.465 |
| 400 | 0.893 | 0.923 | 0.724 | 0.989 | 0.536 | 0.765 | 0.726 |
| 350 | | | 1.006 | | 0.815 | | 1.054 |
| 300 | | | 0.186 | | 0.143 | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 945.9 | 1270.9 | 1260.0 | 917.7 | 1608.1 | 1982.3 | 1820.6 |
| 900 | 1125.8 | 1441.6 | 1666.3 | 2282.4 | 1929.9 | 2089.9 | 1610.4 |
| 850 | 1048.8 | 1350.5 | 1699.6 | 2590.1 | 1836.5 | 1551.2 | 1498.0 |
| 800 | 948.9 | 1265.6 | 1394.3 | 1912.3 | 1481.7 | 1380.4 | 1385.6 |
| 750 | 854.1 | 990.4 | 991.0 | 796.6 | 1240.4 | 1171.7 | 1273.2 |
| 700 | 731.7 | 637.6 | 508.1 | 683.5 | 1003.7 | 985.4 | 1160.8 |
| 650 | 478.6 | 319.4 | 307.5 | 357.4 | 737.8 | 791.0 | 1048.4 |
| 600 | 229.3 | 236.6 | 229.1 | 203.7 | 428.9 | 587.7 | 936.0 |
| 550 | 152.0 | 169.2 | 175.7 | 149.2 | 173.0 | 269.7 | 188.8 |
| 500 | 130.3 | 145.6 | 133.6 | 119.5 | 118.5 | 174.7 | 154.7 |
| 450 | 142.4 | 129.5 | 143.0 | 141.4 | 109.1 | 94.6 | 114.9 |
| 400 | 202.4 | 177.2 | 190.2 | 184.8 | 136.2 | 123.3 | 116.3 |
| 350 | | | | | | | 175.7 |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -78.51 | -78.17 | -77.98 | -77.60 | -77.18 | -76.73 | -76.24 |
| LAT | -34.05 | -36.06 | -37.01 | -38.96 | -40.90 | -42.91 | -44.84 |
| QUAL | 32 | 31 | 31 | 32 | 31 | 32 | 22 |

PASS 4681 AT SOLANT, 63 9 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 71650 | 71725 | 71815 | 71850 | 71925 | 72000 | 72035 | 72110 |
| 1000 | 0.155 | 0.170 | 0.169 | 0.147 | 0.141 | 0.118 | 0.098 | 0.102 |
| 950 | 0.160 | 0.175 | 0.175 | 0.154 | 0.147 | 0.125 | 0.103 | 0.106 |
| 900 | 0.164 | 0.181 | 0.182 | 0.161 | 0.152 | 0.131 | 0.106 | 0.111 |
| 850 | 0.183 | 0.188 | 0.190 | 0.170 | 0.157 | 0.136 | 0.111 | 0.114 |
| 800 | 0.176 | 0.196 | 0.199 | 0.179 | 0.163 | 0.142 | 0.116 | 0.118 |
| 750 | 0.182 | 0.203 | 0.208 | 0.188 | 0.170 | 0.148 | 0.121 | 0.123 |
| 700 | 0.191 | 0.212 | 0.219 | 0.197 | 0.179 | 0.155 | 0.127 | 0.129 |
| 650 | 0.202 | 0.225 | 0.231 | 0.209 | 0.190 | 0.163 | 0.135 | 0.137 |
| 600 | 0.216 | 0.243 | 0.249 | 0.223 | 0.204 | 0.176 | 0.146 | 0.149 |
| 550 | 0.240 | 0.284 | 0.288 | 0.243 | 0.230 | 0.202 | 0.165 | 0.179 |
| 500 | 0.315 | 0.364 | 0.364 | 0.313 | 0.286 | 0.273 | 0.212 | 0.245 |
| 450 | 0.448 | 0.520 | 0.573 | 0.414 | 0.402 | 0.441 | 0.320 | 0.386 |
| 400 | 0.704 | 0.786 | 0.855 | 0.654 | 0.737 | 0.796 | 0.575 | 0.610 |
| 350 | 1.026 | 1.127 | 1.265 | 1.017 | 1.093 | 1.150 | 0.906 | 0.854 |
| 300 | 1.302 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 1874.2 | 1714.1 | 1279.0 | 1082.2 | 1584.1 | 1005.5 | 1370.6 | 1205.2 |
| 900 | 1783.3 | 1412.5 | 1196.2 | 1031.3 | 1412.7 | 1164.3 | 1376.3 | 1435.6 |
| 850 | 1582.1 | 1293.7 | 1172.9 | 985.0 | 1341.8 | 1191.9 | 1171.4 | 1593.8 |
| 800 | 1571.9 | 1517.4 | 1125.0 | 986.8 | 1272.2 | 1194.8 | 1119.2 | 1310.6 |
| 750 | 1204.1 | 1302.9 | 1039.7 | 1013.5 | 1120.7 | 1125.6 | 1067.0 | 1124.4 |
| 700 | 1003.3 | 994.5 | 972.6 | 943.0 | 944.4 | 993.7 | 958.2 | 944.1 |
| 650 | 825.7 | 786.6 | 808.4 | 817.4 | 778.3 | 851.9 | 788.1 | 733.0 |
| 600 | 634.6 | 529.2 | 460.7 | 694.9 | 511.4 | 532.0 | 530.0 | 465.0 |
| 550 | 314.5 | 218.8 | 283.0 | 457.5 | 340.6 | 258.1 | 329.0 | 210.5 |
| 500 | 168.9 | 172.4 | 169.5 | 175.4 | 180.1 | 133.8 | 145.6 | 132.5 |
| 450 | 127.8 | 122.7 | 106.3 | 124.8 | 114.4 | 89.0 | 97.0 | 97.3 |
| 400 | 111.3 | 124.9 | 145.6 | 108.1 | 101.3 | 100.3 | 91.3 | 127.6 |
| 350 | 149.2 | 163.2 | 753.3 | 133.4 | 151.6 | 183.6 | 144.4 | 218.5 |
| 300 | 643.8 | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -75.13 | -74.49 | -73.46 | -72.66 | -71.73 | -70.75 | -69.54 | -68.23 |
| LAT | -48.70 | -50.62 | -53.35 | -55.25 | -57.15 | -59.03 | -60.89 | -62.74 |
| QUAL | 21 | 22 | 21 | 31 | 31 | 21 | 22 | 22 |

PASS 4681 AT SOLANT, 63 9 7

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 72146 | 72221 | 72256 | 72313 |
| 1000 | 0.091 | 0.076 | 0.063 | 0.066 |
| 950 | 0.096 | 0.080 | 0.066 | 0.069 |
| 900 | 0.100 | 0.083 | 0.069 | 0.072 |
| 850 | 0.104 | 0.087 | 0.073 | 0.076 |
| 800 | 0.109 | 0.093 | 0.077 | 0.080 |
| 750 | 0.115 | 0.100 | 0.082 | 0.086 |
| 700 | 0.122 | 0.108 | 0.090 | 0.094 |
| 650 | 0.133 | 0.119 | 0.101 | 0.106 |
| 600 | 0.148 | 0.134 | 0.115 | 0.124 |
| 550 | 0.172 | 0.157 | 0.136 | 0.155 |
| 500 | 0.229 | 0.215 | 0.180 | 0.213 |
| 450 | 0.345 | 0.331 | 0.266 | 0.315 |
| 400 | 0.539 | 0.535 | 0.432 | 0.468 |
| 350 | 0.758 | | 0.616 | |
| 300 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | |
|---|---|---|---|---|
| 950 | 1068.1 | 1064.0 | 1125.4 | 1519.0 |
| 900 | 1404.3 | 1067.0 | 1003.5 | 1157.6 |
| 850 | 1258.6 | 902.4 | 952.8 | 934.8 |
| 800 | 1011.5 | 769.2 | 841.9 | 807.4 |
| 750 | 870.2 | 661.9 | 650.1 | 661.1 |
| 700 | 718.0 | 573.4 | 517.1 | 508.7 |
| 650 | 550.9 | 488.2 | 408.5 | 367.0 |
| 600 | 402.1 | 374.7 | 342.0 | 266.7 |
| 550 | 270.1 | 233.4 | 250.2 | 197.5 |
| 500 | 133.3 | 133.6 | 148.1 | 134.7 |
| 450 | 117.8 | 108.4 | 112.9 | 127.7 |
| 400 | 124.7 | 110.7 | 119.1 | 132.7 |
| 350 | 181.9 | | 159.7 | |
| 300 | | | | |

| | | | | |
|---|---|---|---|---|
| LONG | -66.66 | -64.86 | -62.89 | -61.68 |
| LAT | -64.63 | -66.43 | -68.23 | -69.07 |
| QUAL | 22 | 23 | 31 | 32 |

PASS 4721 AT RESLUT, 63 910

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 50024 | 50059 | 50227 | 50302 | 50355 | 50413 | 50430 | 50541 |
| 1000 | 0.022 | 0.021 | 0.016 | 0.033 | 0.037 | 0.043 | 0.042 | 0.049 |
| 950 | 0.024 | 0.024 | 0.018 | 0.037 | 0.041 | 0.052 | 0.047 | 0.056 |
| 900 | 0.028 | 0.027 | 0.021 | 0.044 | 0.047 | 0.057 | 0.055 | 0.059 |
| 850 | 0.034 | 0.031 | 0.024 | 0.052 | 0.055 | 0.065 | 0.063 | 0.064 |
| 800 | 0.041 | 0.038 | 0.029 | 0.063 | 0.066 | 0.075 | 0.073 | 0.071 |
| 750 | 0.051 | 0.048 | 0.035 | 0.077 | 0.082 | 0.089 | 0.085 | 0.079 |
| 700 | 0.063 | 0.061 | 0.042 | 0.097 | 0.106 | 0.106 | 0.102 | 0.089 |
| 650 | 0.083 | 0.081 | 0.052 | 0.123 | 0.138 | 0.131 | 0.130 | 0.104 |
| 600 | 0.111 | 0.111 | 0.065 | 0.161 | 0.182 | 0.169 | 0.173 | 0.121 |
| 550 | 0.151 | 0.155 | 0.085 | 0.213 | 0.249 | 0.230 | 0.238 | 0.148 |
| 500 | 0.212 | 0.220 | 0.116 | 0.291 | 0.353 | 0.331 | 0.331 | 0.181 |
| 450 | 0.301 | 0.314 | 0.165 | 0.404 | 0.511 | 0.474 | 0.464 | 0.229 |
| 400 | 0.428 | 0.445 | 0.238 | 0.558 | 0.733 | 0.661 | 0.640 | 0.298 |
| 350 | 0.605 | 0.617 | | 0.767 | 1.031 | | 0.867 | 0.392 |
| 300 | 0.855 | | | 1.093 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 388.2 | 484.3 | 564.3 | 337.9 | 428.1 | 421.7 | 358.9 | 652.3 |
| 900 | 304.5 | 350.0 | 371.3 | 286.6 | 338.2 | 438.9 | 353.0 | 797.8 |
| 850 | 264.9 | 292.2 | 309.6 | 284.3 | 298.9 | 376.2 | 343.6 | 605.3 |
| 800 | 238.0 | 246.0 | 289.2 | 254.2 | 254.4 | 323.4 | 351.2 | 495.1 |
| 750 | 226.5 | 215.4 | 269.3 | 231.4 | 208.4 | 285.1 | 294.4 | 417.6 |
| 700 | 214.9 | 196.0 | 249.9 | 216.0 | 195.8 | 263.1 | 240.1 | 359.0 |
| 650 | 190.4 | 165.1 | 228.8 | 203.0 | 187.4 | 217.4 | 197.6 | 327.1 |
| 600 | 169.1 | 157.9 | 206.9 | 188.1 | 172.0 | 182.6 | 169.8 | 295.6 |
| 550 | 157.1 | 148.7 | 180.4 | 172.4 | 152.1 | 146.7 | 153.9 | 268.5 |
| 500 | 149.9 | 142.6 | 156.2 | 159.7 | 140.6 | 138.4 | 149.5 | 241.5 |
| 450 | 144.3 | 142.0 | 139.4 | 153.2 | 138.5 | 144.5 | 152.2 | 206.3 |
| 400 | 142.9 | 148.7 | 138.7 | 156.4 | 141.9 | 155.6 | 160.6 | 186.1 |
| 350 | 145.7 | 161.1 | | 150.2 | 168.4 | | 175.0 | 184.8 |
| 300 | 191.3 | | | 131.9 | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -97.98 | -93.09 | -85.11 | -82.62 | -79.73 | -78.91 | -78.19 | -75.55 |
| LAT | 75.37 | 73.85 | 69.61 | 67.85 | 65.10 | 64.15 | 63.25 | 59.46 |
| QUAL | 22 | 22 | 33 | 33 | 22 | 33 | 12 | 33 |

PASS 4721 AT OTTAWA, 63 910

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 51220 | 51255 | 51458 | 51516 | 51551 | 51608 | 51644 |
| 1000 | 0.061 | 0.091 | 0.099 | 0.103 | 0.114 | 0.099 | 0.102 |
| 950 | 0.064 | 0.098 | 0.108 | 0.109 | 0.120 | 0.104 | 0.108 |
| 900 | 0.066 | 0.099 | 0.113 | 0.112 | 0.123 | 0.107 | 0.111 |
| 850 | 0.070 | 0.103 | 0.117 | 0.115 | 0.127 | 0.111 | 0.116 |
| 800 | 0.073 | 0.106 | 0.122 | 0.120 | 0.131 | 0.115 | 0.121 |
| 750 | 0.076 | 0.111 | 0.127 | 0.125 | 0.137 | 0.120 | 0.128 |
| 700 | 0.081 | 0.117 | 0.134 | 0.132 | 0.144 | 0.126 | 0.137 |
| 650 | 0.087 | 0.126 | 0.143 | 0.142 | 0.154 | 0.134 | 0.151 |
| 600 | 0.097 | 0.139 | 0.159 | 0.155 | 0.168 | 0.148 | 0.173 |
| 550 | 0.113 | 0.160 | 0.209 | 0.182 | | 0.165 | 0.209 |
| 500 | 0.139 | 0.199 | 0.315 | | | 0.198 | 0.263 |
| 450 | 0.183 | 0.270 | 0.511 | | | | 0.355 |
| 400 | 0.266 | | 0.852 | | | | 0.499 |
| 350 | | | | | | | 0.704 |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 1510.1 | 2561.6 | 1445.8 | 1707.6 | 1849.7 | 1629.3 | 1746.1 |
| 900 | 1353.0 | 3300.7 | 1248.5 | 1874.0 | 1965.9 | 1683.7 | 1785.1 |
| 850 | 1089.9 | 1399.7 | 1230.2 | 1469.8 | 1547.9 | 1321.8 | 1107.9 |
| 800 | 1081.3 | 1264.8 | 1352.2 | 1238.0 | 1384.7 | 1261.6 | 1000.0 |
| 750 | 973.6 | 1015.6 | 1104.7 | 1038.0 | 1093.9 | 1155.5 | 842.3 |
| 700 | 777.5 | 796.8 | 856.0 | 795.3 | 869.0 | 965.2 | 641.3 |
| 650 | 565.5 | 613.7 | 685.2 | 664.6 | 693.1 | 715.1 | 414.8 |
| 600 | 414.3 | 434.3 | 334.4 | 423.9 | 470.0 | 451.5 | 332.7 |
| 550 | 299.1 | 292.3 | 134.8 | 252.2 | | 394.6 | 247.0 |
| 500 | 217.1 | 198.8 | 115.5 | | | 230.7 | 186.2 |
| 450 | 163.3 | 140.3 | 99.2 | | | | 163.3 |
| 400 | 108.4 | | 101.6 | | | | 142.4 |
| 350 | | | | | | | 151.9 |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -68.07 | -67.70 | -66.59 | -66.45 | -66.18 | -66.05 | -65.80 |
| LAT | 37.43 | 35.47 | 28.54 | 27.53 | 25.56 | 24.60 | 22.56 |
| QUAL | 33 | 23 | 32 | 33 | 33 | 33 | 23 |

PASS 4721 AT SOLANT, 63 910

ELECTRON DENSITY IN ELECTRONS PER CC (X1C-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 54051 | 54157 | 54215 | 54233 | 54250 | 54326 | 54401 |
| 1000 | 0.095 | 0.102 | 0.095 | 0.092 | 0.088 | 0.075 | 0.058 |
| 950 | 0.100 | 0.107 | 0.099 | 0.096 | 0.093 | 0.077 | 0.061 |
| 900 | 0.103 | 0.111 | 0.102 | 0.100 | 0.097 | 0.079 | 0.063 |
| 850 | 0.107 | 0.117 | 0.105 | 0.104 | 0.102 | 0.082 | 0.065 |
| 800 | 0.111 | 0.124 | 0.110 | 0.110 | 0.108 | 0.087 | 0.067 |
| 750 | 0.116 | 0.132 | 0.117 | 0.117 | 0.115 | 0.091 | 0.071 |
| 700 | 0.123 | 0.141 | 0.126 | 0.126 | 0.124 | 0.096 | 0.076 |
| 650 | 0.133 | 0.152 | 0.137 | 0.137 | 0.135 | 0.104 | 0.083 |
| 600 | 0.147 | 0.167 | 0.152 | 0.155 | 0.150 | 0.115 | 0.092 |
| 550 | 0.173 | 0.192 | 0.176 | 0.184 | 0.175 | 0.130 | 0.105 |
| 500 | 0.228 | 0.237 | 0.223 | 0.244 | 0.226 | 0.153 | 0.129 |
| 450 | 0.338 | 0.339 | 0.329 | 0.363 | 0.317 | 0.192 | 0.180 |
| 400 | 0.546 | 0.494 | 0.494 | 0.554 | 0.482 | 0.268 | 0.349 |
| 350 | | 0.692 | 0.716 | 0.762 | 0.676 | 0.404 | 0.542 |
| 300 | | | | | | 0.541 | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 1431.5 | 1269.4 | 1351.9 | 1249.7 | 1020.2 | 1956.1 | 1587.2 |
| 900 | 1335.6 | 1098.8 | 1687.5 | 1208.2 | 1074.4 | 1658.9 | 2115.5 |
| 850 | 1332.3 | 911.2 | 1289.0 | 1071.2 | 965.1 | 1228.9 | 1432.7 |
| 800 | 1284.0 | 826.9 | 990.8 | 889.9 | 825.1 | 1010.8 | 1040.5 |
| 750 | 1062.1 | 811.8 | 819.9 | 751.7 | 724.8 | 960.6 | 822.3 |
| 700 | 756.1 | 704.3 | 695.0 | 639.7 | 635.0 | 788.2 | 701.5 |
| 650 | 569.7 | 586.6 | 544.1 | 481.7 | 538.0 | 568.2 | 568.1 |
| 600 | 408.4 | 456.5 | 409.0 | 349.8 | 407.6 | 462.3 | 420.7 |
| 550 | 255.5 | 301.3 | 298.6 | 245.6 | 279.3 | 361.6 | 315.9 |
| 500 | 143.6 | 199.6 | 169.6 | 150.6 | 169.4 | 265.8 | 199.3 |
| 450 | 114.1 | 125.0 | 121.8 | 120.0 | 122.9 | 192.0 | 120.1 |
| 400 | 132.0 | 133.7 | 125.8 | 130.8 | 134.2 | 130.7 | 91.7 |
| 350 | | 187.1 | 197.4 | 213.2 | 172.5 | 142.5 | 118.9 |
| 300 | | | | | | 222.3 | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -52.04 | -49.83 | -49.09 | -48.32 | -47.60 | -45.69 | -43.69 |
| LAT | -58.49 | -62.00 | -62.94 | -63.89 | -64.78 | -66.63 | -68.42 |
| QUAL | 23 | 22 | 23 | 33 | 33 | 23 | 23 |

PASS 4749 AT COLEGE, 63 912

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 61217 | 61254 | 61327 | 61404 | 61437 | 61514 | 61547 | 61625 |
| 1000 | 0.158 | 0.159 | 0.136 | 0.109 | 0.074 | 0.068 | 0.059 | 0.047 |
| 950 | 0.175 | 0.176 | 0.151 | 0.123 | 0.086 | 0.076 | 0.067 | 0.055 |
| 900 | 0.194 | 0.197 | 0.170 | 0.140 | 0.099 | 0.086 | 0.075 | 0.063 |
| 850 | 0.216 | 0.221 | 0.190 | 0.159 | 0.113 | 0.098 | 0.089 | 0.075 |
| 800 | 0.245 | 0.254 | 0.216 | 0.183 | 0.130 | 0.116 | 0.110 | 0.094 |
| 750 | 0.287 | 0.296 | 0.251 | 0.221 | 0.152 | 0.138 | 0.138 | 0.120 |
| 700 | 0.339 | 0.347 | 0.294 | 0.269 | 0.176 | 0.171 | 0.173 | 0.152 |
| 650 | 0.400 | 0.407 | 0.343 | 0.326 | 0.216 | 0.216 | 0.225 | 0.190 |
| 600 | 0.482 | 0.498 | 0.403 | 0.398 | 0.278 | 0.272 | 0.289 | 0.256 |
| 550 | 0.582 | 0.609 | 0.522 | 0.504 | 0.355 | 0.337 | 0.364 | 0.336 |
| 500 | 0.711 | 0.750 | 0.668 | 0.631 | 0.462 | 0.491 | 0.516 | 0.454 |
| 450 | 0.897 | 0.931 | 0.853 | 0.808 | 0.602 | 0.692 | 0.712 | 0.628 |
| 400 | 1.117 | 1.157 | 1.079 | 1.037 | 0.801 | 0.954 | 0.942 | 0.871 |
| 350 | 1.368 | 1.416 | 1.348 | 1.331 | 1.069 | 1.272 | 1.256 | 1.213 |
| 300 | | | 1.628 | 1.674 | 1.414 | 1.623 | 1.667 | 1.672 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 480.5 | 459.3 | 459.1 | 388.3 | 345.7 | 434.4 | 443.4 | 381.2 |
| 900 | 449.4 | 422.7 | 418.7 | 363.7 | 355.8 | 383.7 | 349.8 | 315.2 |
| 850 | 404.7 | 379.4 | 384.3 | 336.5 | 344.3 | 338.9 | 303.2 | 275.8 |
| 800 | 369.4 | 356.1 | 360.3 | 311.0 | 324.5 | 302.6 | 275.5 | 260.4 |
| 750 | 347.0 | 336.7 | 340.3 | 295.3 | 304.8 | 266.3 | 247.9 | 244.9 |
| 700 | 324.6 | 317.2 | 320.3 | 279.6 | 285.1 | 243.3 | 222.1 | 229.5 |
| 650 | 302.2 | 297.7 | 300.4 | 263.8 | 262.2 | 226.7 | 209.7 | 214.1 |
| 600 | 280.9 | 276.4 | 279.3 | 248.2 | 236.5 | 210.1 | 197.3 | 197.2 |
| 550 | 259.9 | 255.0 | 245.3 | 232.8 | 210.8 | 193.4 | 184.8 | 180.3 |
| 500 | 242.3 | 241.1 | 211.2 | 217.4 | 195.4 | 165.8 | 170.3 | 166.8 |
| 450 | 230.4 | 233.5 | 211.1 | 207.2 | 185.6 | 152.6 | 165.4 | 156.6 |
| 400 | 241.6 | 244.4 | 224.2 | 202.9 | 178.1 | 166.3 | 175.5 | 152.4 |
| 350 | 261.9 | 265.0 | 247.9 | 210.1 | 177.7 | 192.7 | 177.4 | 155.4 |
| 300 | | | 283.2 | 225.2 | 185.7 | 226.0 | 174.7 | 155.9 |
| LONG | -160.80 | -148.99 | -140.29 | -131.29 | -125.38 | -119.51 | -115.37 | -111.50 |
| LAT | 80.28 | 79.80 | 78.95 | 77.85 | 76.57 | 75.04 | 73.57 | 71.78 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 4749 AT COLEGE, 63 912

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 61720 | 61735 | 61810 | 61845 | 61920 | 61955 | 62030 |
| 1000 | 0.034 | 0.034 | 0.067 | 0.079 | 0.051 | 0.044 | 0.040 |
| 950 | 0.039 | 0.039 | 0.077 | 0.089 | 0.059 | 0.055 | 0.049 |
| 900 | 0.044 | 0.043 | 0.088 | 0.099 | 0.065 | 0.067 | 0.059 |
| 850 | 0.051 | 0.049 | 0.101 | 0.112 | 0.072 | 0.080 | 0.070 |
| 800 | 0.063 | 0.058 | 0.120 | 0.127 | 0.079 | 0.092 | 0.084 |
| 750 | 0.077 | 0.081 | 0.145 | 0.146 | 0.087 | 0.107 | 0.102 |
| 700 | 0.092 | 0.108 | 0.175 | 0.167 | 0.105 | 0.123 | 0.123 |
| 650 | 0.122 | 0.136 | 0.212 | 0.189 | 0.130 | 0.142 | 0.150 |
| 600 | 0.173 | 0.167 | 0.263 | 0.224 | 0.161 | 0.171 | 0.187 |
| 550 | 0.251 | 0.236 | 0.322 | 0.275 | 0.195 | 0.207 | 0.234 |
| 500 | 0.370 | 0.353 | 0.404 | 0.338 | 0.237 | 0.276 | 0.302 |
| 450 | 0.567 | 0.508 | 0.533 | 0.453 | 0.327 | 0.395 | 0.424 |
| 400 | 0.764 | 0.720 | 0.697 | 0.612 | 0.454 | 0.539 | 0.586 |
| 350 | 1.061 | 1.008 | 0.929 | 0.815 | 0.620 | 0.701 | 0.760 |
| 300 | 1.513 | | 1.257 | 1.060 | 0.817 | 0.887 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 440.0 | 423.8 | 374.9 | 469.0 | 452.8 | 233.6 | 259.9 |
| 900 | 380.5 | 392.2 | 349.2 | 431.3 | 479.9 | 276.3 | 267.1 |
| 850 | 300.5 | 339.1 | 312.6 | 402.1 | 449.8 | 314.3 | 269.5 |
| 800 | 247.0 | 281.0 | 299.4 | 392.2 | 419.7 | 341.9 | 267.0 |
| 750 | 235.3 | 214.1 | 286.1 | 382.4 | 389.6 | 344.4 | 262.0 |
| 700 | 223.7 | 184.5 | 272.9 | 353.9 | 334.0 | 330.9 | 254.4 |
| 650 | 173.9 | 184.1 | 258.9 | 325.1 | 272.5 | 303.1 | 245.2 |
| 600 | 140.1 | 183.6 | 243.8 | 291.7 | 239.4 | 265.9 | 229.0 |
| 550 | 133.0 | 160.6 | 228.6 | 256.0 | 227.8 | 227.2 | 207.5 |
| 500 | 131.6 | 132.1 | 213.6 | 220.3 | 212.7 | 158.4 | 175.3 |
| 450 | 139.5 | 140.6 | 198.9 | 193.8 | 155.0 | 152.1 | 151.0 |
| 400 | 143.1 | 146.6 | 184.2 | 173.5 | 162.7 | 175.3 | 177.9 |
| 350 | 149.2 | 150.1 | 169.1 | 185.0 | 173.9 | 201.3 | 217.1 |
| 300 | 167.0 | | 162.3 | 198.1 | 186.1 | 227.5 | |
| LONG | -108.36 | -106.04 | -103.87 | -102.11 | -100.55 | -99.16 | -98.03 |
| LAT | 70.08 | 68.31 | 66.52 | 64.69 | 62.84 | 60.98 | 59.09 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 4749 AT FTMYRS, 63 912

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 62811 | 62903 | 62938 | 63013 | 63048 | 63124 | 63234 | 63344 |
| 1000 | 0.107 | 0.120 | 0.113 | 0.117 | 0.129 | 0.128 | 0.142 | 0.141 |
| 950 | 0.118 | 0.132 | 0.123 | 0.131 | 0.145 | 0.142 | 0.157 | 0.150 |
| 900 | 0.126 | 0.135 | 0.129 | 0.139 | 0.151 | 0.147 | 0.162 | 0.157 |
| 850 | 0.133 | 0.141 | 0.135 | 0.146 | 0.157 | 0.154 | 0.168 | 0.163 |
| 800 | 0.141 | 0.149 | 0.141 | 0.153 | 0.163 | 0.162 | 0.176 | 0.170 |
| 750 | 0.150 | 0.157 | 0.148 | 0.161 | 0.172 | 0.172 | 0.184 | 0.177 |
| 700 | 0.163 | 0.166 | 0.157 | 0.170 | 0.183 | 0.182 | 0.193 | 0.188 |
| 650 | 0.182 | 0.180 | 0.171 | 0.182 | 0.198 | 0.197 | 0.207 | 0.204 |
| 600 | 0.213 | 0.199 | 0.193 | 0.199 | 0.218 | 0.219 | 0.228 | 0.224 |
| 550 | 0.261 | 0.222 | 0.226 | 0.229 | 0.245 | 0.256 | 0.282 | 0.282 |
| 500 | 0.339 | 0.291 | 0.279 | 0.281 | 0.314 | 0.358 | 0.382 | 0.382 |
| 450 | 0.510 | 0.438 | 0.372 | 0.401 | 0.468 | 0.529 | 0.576 | 0.593 |
| 400 | | 0.712 | 0.617 | 0.706 | 0.752 | 0.873 | 0.956 | 0.987 |
| 350 | | 1.146 | 1.067 | 1.159 | 1.259 | 1.410 | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | | 1611.4 | | | | 1364.7 | | 1223.6 |
| 900 | 827.8 | 1386.0 | 1122.6 | 960.9 | 1284.3 | 1312.7 | 1510.7 | 1205.6 |
| 850 | 853.0 | 1137.6 | 1099.0 | 1041.7 | 1234.5 | 1044.8 | 1300.6 | 1215.6 |
| 800 | 819.1 | 986.9 | 1028.7 | 1004.7 | 1055.3 | 946.6 | 1108.4 | 1145.3 |
| 750 | 696.2 | 859.2 | 882.4 | 925.2 | 913.5 | 835.2 | 984.5 | 944.0 |
| 700 | 557.6 | 732.2 | 722.7 | 807.5 | 771.6 | 718.0 | 860.7 | 775.3 |
| 650 | 399.4 | 609.5 | 543.8 | 657.1 | 633.2 | 584.8 | 659.2 | 607.8 |
| 600 | 298.9 | 486.8 | 399.4 | 471.6 | 503.3 | 446.0 | 413.8 | 437.8 |
| 550 | 222.4 | 364.1 | 290.6 | 314.4 | 342.6 | 217.9 | 223.1 | 213.5 |
| 500 | 162.5 | 178.9 | 218.3 | 212.2 | 167.0 | 138.2 | 150.8 | 141.8 |
| 450 | 116.4 | 118.5 | 151.4 | 114.7 | 121.1 | 118.7 | 117.0 | 112.6 |
| 400 | | 103.5 | 94.8 | 92.7 | 102.6 | 101.3 | 98.7 | 96.2 |
| 350 | | 130.0 | 125.2 | 126.5 | 110.4 | 136.1 | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -90.08 | -89.61 | -89.32 | -89.04 | -88.78 | -88.53 | -88.06 | -87.64 |
| LAT | 33.56 | 30.63 | 28.66 | 26.69 | 24.71 | 22.68 | 18.73 | 14.77 |
| QUAL | 33 | 33 | 33 | 23 | 23 | 23 | 23 | 33 |

PASS 4749 AT FTMYRS, 63 912

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 63401 | 63437 | 63512 | 63547 |
| 1000 | 0.125 | 0.129 | 0.130 | 0.131 |
| 950 | 0.136 | 0.138 | 0.139 | 0.138 |
| 900 | 0.143 | 0.144 | 0.143 | 0.144 |
| 850 | 0.150 | 0.149 | 0.148 | 0.147 |
| 800 | 0.158 | 0.155 | 0.153 | 0.152 |
| 750 | 0.166 | 0.163 | 0.159 | 0.159 |
| 700 | 0.175 | 0.172 | 0.165 | 0.168 |
| 650 | 0.187 | 0.184 | 0.172 | 0.180 |
| 600 | 0.203 | 0.201 | 0.191 | 0.197 |
| 550 | 0.240 | 0.235 | 0.222 | 0.232 |
| 500 | 0.309 | 0.299 | 0.285 | 0.301 |
| 450 | 0.454 | 0.435 | 0.425 | 0.484 |
| 400 | 0.781 | 0.753 | 0.752 | 0.786 |
| 350 | 1.269 | 1.359 | 1.418 | 1.459 |
| 300 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | |
|---|---|---|---|---|
| 950 | 858.2 | | 1646.7 | |
| 900 | 1018.9 | 1474.1 | 1487.4 | 1840.9 |
| 850 | 1107.7 | 1346.7 | 1403.0 | 1606.8 |
| 800 | 995.8 | 1204.5 | 1281.8 | 1343.7 |
| 750 | 953.0 | 890.6 | 1160.7 | 1123.3 |
| 700 | 812.8 | 801.8 | 1039.5 | 903.0 |
| 650 | 668.0 | 661.6 | 918.3 | 677.5 |
| 600 | 528.2 | 467.2 | 572.9 | 453.8 |
| 550 | 212.8 | 267.3 | 279.5 | 267.8 |
| 500 | 163.6 | 176.4 | 170.7 | 144.5 |
| 450 | 113.5 | 113.6 | 111.5 | 108.9 |
| 400 | 91.5 | 91.3 | 84.2 | 96.1 |
| 350 | 121.9 | 108.1 | 90.2 | 78.3 |
| 300 | | | | |

| | | | | |
|---|---|---|---|---|
| LONG | -87.53 | -87.33 | -87.13 | -86.94 |
| LAT | 13.80 | 11.77 | 9.79 | 7.81 |
| QUAL | 23 | 23 | 23 | 23 |

PASS 4749 AT AGASTA, 63 912

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 65028 | 65103 | 65238 | 65313 | 65349 | 65424 | 65459 | 65534 |
| 1000 | 0.115 | 0.118 | 0.105 | 0.104 | 0.095 | 0.092 | 0.089 | 0.074 |
| 950 | 0.122 | 0.121 | 0.110 | 0.109 | 0.098 | 0.097 | 0.095 | 0.077 |
| 900 | 0.128 | 0.126 | 0.113 | 0.112 | 0.102 | 0.101 | 0.098 | 0.080 |
| 850 | 0.132 | 0.133 | 0.116 | 0.115 | 0.109 | 0.106 | 0.102 | 0.084 |
| 800 | 0.137 | 0.140 | 0.123 | 0.118 | 0.116 | 0.111 | 0.108 | 0.089 |
| 750 | 0.144 | 0.147 | 0.134 | 0.127 | 0.123 | 0.116 | 0.117 | 0.094 |
| 700 | 0.152 | 0.154 | 0.141 | 0.141 | 0.130 | 0.125 | 0.126 | 0.106 |
| 650 | 0.163 | 0.163 | 0.149 | 0.155 | 0.137 | 0.139 | 0.137 | 0.124 |
| 600 | 0.180 | 0.184 | 0.170 | 0.172 | 0.156 | 0.158 | 0.162 | 0.149 |
| 550 | 0.211 | 0.213 | 0.195 | 0.206 | 0.186 | 0.189 | 0.204 | 0.186 |
| 500 | 0.287 | 0.272 | 0.251 | 0.269 | 0.241 | 0.242 | 0.294 | 0.248 |
| 450 | 0.445 | 0.431 | 0.362 | 0.421 | 0.370 | 0.356 | 0.447 | 0.379 |
| 400 | 0.763 | 0.726 | 0.655 | 0.696 | 0.604 | 0.580 | 0.679 | 0.608 |
| 350 | | 1.148 | 1.023 | 1.030 | 0.950 | 0.873 | 0.951 | 0.887 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | | 1462.4 | | | 1287.4 | 1244.4 | | 1438.7 |
| 900 | 1724.2 | 1156.6 | 1841.1 | 1849.2 | 1034.3 | 1180.3 | 1343.0 | 1281.8 |
| 850 | 1477.0 | 998.9 | 1452.5 | 1573.0 | 853.6 | 1050.0 | 1093.6 | 886.0 |
| 800 | 1166.6 | 927.3 | 980.0 | 1296.8 | 780.9 | 928.8 | 897.8 | 756.0 |
| 750 | 985.9 | 855.8 | 752.9 | 979.5 | 729.8 | 807.7 | 702.1 | 626.0 |
| 700 | 823.3 | 784.2 | 753.3 | 649.4 | 678.7 | 677.8 | 581.0 | 496.7 |
| 650 | 646.9 | 686.4 | 562.2 | 509.4 | 627.5 | 539.5 | 460.2 | 367.4 |
| 600 | 461.1 | 486.2 | 372.4 | 397.5 | 441.9 | 401.2 | 283.3 | 268.2 |
| 550 | 260.1 | 295.2 | 296.4 | 239.2 | 245.2 | 281.2 | 184.3 | 215.1 |
| 500 | 142.5 | 173.4 | 159.7 | 152.3 | 162.2 | 181.9 | 130.4 | 162.8 |
| 450 | 100.7 | 98.3 | 114.4 | 106.5 | 108.3 | 120.6 | 122.1 | 114.6 |
| 400 | 114.8 | 102.7 | 93.8 | 113.3 | 105.6 | 110.9 | 134.0 | 121.9 |
| 350 | | 177.3 | 171.1 | 169.7 | 140.4 | 154.8 | 182.7 | 183.5 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -80.72 | -80.27 | -78.78 | -78.14 | -77.41 | -76.61 | -75.75 | -74.72 |
| LAT | -41.78 | -43.73 | -48.95 | -50.87 | -52.84 | -54.74 | -56.63 | -58.50 |
| QUAL | 23 | 21 | 21 | 33 | 33 | 23 | 33 | 33 |

PASS 4749 AT AGASTA, 63 912

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 65609 | 65644 |
| 1000 | 0.075 | 0.060 |
| 950 | 0.079 | 0.063 |
| 900 | 0.082 | 0.067 |
| 850 | 0.085 | 0.072 |
| 800 | 0.088 | 0.078 |
| 750 | 0.098 | 0.084 |
| 700 | 0.112 | 0.092 |
| 650 | 0.124 | 0.103 |
| 600 | 0.138 | 0.118 |
| 550 | 0.174 | 0.144 |
| 500 | 0.241 | 0.192 |
| 450 | 0.404 | 0.298 |
| 400 | 0.631 | 0.508 |
| 350 | 0.921 | 0.778 |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 1259.4 | 886.7 |
| 900 | 1255.8 | 770.7 |
| 850 | 1082.8 | 679.1 |
| 800 | 909.8 | 637.6 |
| 750 | 682.0 | 578.5 |
| 700 | 458.3 | 511.6 |
| 650 | 414.4 | 420.3 |
| 600 | 353.3 | 324.7 |
| 550 | 187.2 | 216.6 |
| 500 | 127.6 | 152.2 |
| 450 | 106.1 | 110.3 |
| 400 | 115.6 | 105.7 |
| 350 | 279.9 | 162.7 |
| 300 | | |

| | | |
|---|---|---|
| LONG | -73.62 | -72.34 |
| LAT | -60.38 | -62.23 |
| QUAL | 21 | 21 |

PASS 4749 AT SOLANT, 63 912

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 64751 | 64826 | 64901 | 64936 | 65011 | 65046 | 65121 | 65239 |
| 1000 | 0.116 | 0.117 | 0.119 | 0.112 | 0.120 | 0.125 | 0.124 | 0.108 |
| 950 | 0.122 | 0.123 | 0.125 | 0.119 | 0.125 | 0.132 | 0.132 | 0.114 |
| 900 | 0.127 | 0.130 | 0.132 | 0.126 | 0.131 | 0.139 | 0.139 | 0.119 |
| 850 | 0.132 | 0.135 | 0.136 | 0.131 | 0.135 | 0.145 | 0.148 | 0.125 |
| 800 | 0.138 | 0.141 | 0.141 | 0.136 | 0.140 | 0.153 | 0.155 | 0.132 |
| 750 | 0.145 | 0.148 | 0.150 | 0.142 | 0.145 | 0.160 | 0.162 | 0.140 |
| 700 | 0.155 | 0.157 | 0.161 | 0.149 | 0.151 | 0.169 | 0.170 | 0.149 |
| 650 | 0.167 | 0.170 | 0.172 | 0.160 | 0.158 | 0.181 | 0.186 | 0.161 |
| 600 | 0.187 | 0.198 | 0.190 | 0.180 | 0.176 | 0.205 | 0.209 | 0.177 |
| 550 | 0.227 | 0.249 | 0.248 | 0.226 | 0.206 | 0.247 | 0.249 | 0.209 |
| 500 | 0.322 | 0.348 | 0.337 | 0.310 | 0.265 | 0.350 | 0.345 | 0.272 |
| 450 | 0.498 | 0.580 | 0.555 | 0.541 | 0.434 | 0.558 | 0.543 | 0.429 |
| 400 | 0.784 | 0.867 | 0.866 | 0.821 | 0.698 | 0.886 | 0.856 | 0.706 |
| 350 | 1.114 | | | 1.151 | 1.079 | | | 1.071 |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | | | | | 974.6 | | 997.8 |
| 900 | 1214.9 | 1241.8 | 1567.2 | | 1613.3 | 1019.1 | | 1033.1 |
| 850 | 1173.2 | 1232.7 | 1476.3 | 1268.1 | 1404.2 | 1018.6 | | 981.2 |
| 800 | 1065.9 | 1093.6 | 1168.1 | 1181.5 | 1280.5 | 949.2 | 1079.7 | 915.9 |
| 750 | 863.7 | 903.2 | 842.9 | 1039.3 | 1156.8 | 861.5 | 955.9 | 838.8 |
| 700 | 721.3 | 721.2 | 676.3 | 897.1 | 1033.0 | 773.7 | 773.4 | 698.3 |
| 650 | 590.7 | 506.0 | 567.3 | 639.6 | 864.8 | 631.8 | 601.5 | 571.2 |
| 600 | 374.0 | 279.7 | 421.4 | 320.9 | 457.7 | 400.0 | 429.7 | 435.7 |
| 550 | 193.1 | 196.0 | 171.2 | 199.1 | 257.2 | 230.2 | 258.8 | 258.2 |
| 500 | 130.2 | 127.6 | 136.0 | 128.6 | 143.0 | 130.7 | 138.1 | 133.6 |
| 450 | 110.7 | 112.8 | 107.3 | 102.4 | 100.9 | 109.7 | 111.9 | 105.9 |
| 400 | 124.6 | 139.2 | 123.8 | 134.9 | 108.8 | 132.8 | 119.2 | 115.2 |
| 350 | 184.1 | | | 162.5 | 165.8 | | | 169.0 |
| 300 | | | | | | | | |
| LONG | -82.41 | -82.07 | -81.73 | -81.34 | -80.93 | -80.49 | -80.00 | -78.76 |
| LAT | -33.05 | -35.00 | -36.96 | -38.90 | -40.84 | -42.78 | -44.72 | -49.01 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 4749 AT SULANT, 63 912

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 65424 | 65459 | 65609 | 65644 | 65719 | 65737 |
| 1000 | 0.097 | 0.082 | 0.084 | 0.069 | 0.049 | 0.047 |
| 950 | 0.104 | 0.087 | 0.087 | 0.073 | 0.053 | 0.051 |
| 900 | 0.108 | 0.092 | 0.092 | 0.078 | 0.056 | 0.054 |
| 850 | 0.112 | 0.096 | 0.099 | 0.084 | 0.061 | 0.058 |
| 800 | 0.118 | 0.101 | 0.106 | 0.090 | 0.067 | 0.062 |
| 750 | 0.125 | 0.108 | 0.113 | 0.097 | 0.072 | 0.067 |
| 700 | 0.136 | 0.116 | 0.122 | 0.104 | 0.077 | 0.076 |
| 650 | 0.149 | 0.126 | 0.140 | 0.118 | 0.084 | 0.088 |
| 600 | 0.164 | 0.142 | 0.164 | 0.137 | 0.101 | 0.104 |
| 550 | 0.207 | 0.170 | 0.205 | 0.160 | 0.126 | 0.130 |
| 500 | 0.289 | 0.234 | 0.283 | 0.230 | 0.169 | 0.188 |
| 450 | 0.426 | 0.374 | 0.452 | 0.355 | 0.276 | 0.295 |
| 400 | 0.646 | 0.624 | 0.713 | 0.568 | 0.478 | 0.471 |
| 350 | 0.924 | 0.960 | | | 0.737 | 0.689 |
| 300 | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | |
|---|---|---|---|---|---|---|
| 950 | | | 1121.2 | 770.9 | 860.8 | 888.5 |
| 900 | 1437.5 | 1000.5 | 858.8 | 723.0 | 737.9 | 802.6 |
| 850 | 1181.0 | 963.6 | 758.2 | 686.3 | 632.3 | 701.6 |
| 800 | 975.3 | 870.5 | 687.0 | 634.0 | 585.0 | 604.2 |
| 750 | 769.5 | 759.9 | 621.0 | 581.6 | 553.3 | 506.8 |
| 700 | 632.3 | 638.6 | 543.4 | 529.2 | 521.6 | 431.8 |
| 650 | 517.7 | 509.0 | 430.9 | 439.9 | 464.9 | 362.9 |
| 600 | 403.1 | 373.4 | 318.3 | 345.7 | 326.4 | 294.0 |
| 550 | 224.6 | 232.7 | 217.1 | 251.5 | 206.0 | 223.5 |
| 500 | 142.6 | 132.8 | 136.3 | 153.4 | 141.4 | 147.6 |
| 450 | 126.1 | 104.8 | 112.8 | 115.0 | 97.1 | 115.4 |
| 400 | 133.1 | 108.3 | 107.8 | 100.5 | 106.2 | 121.9 |
| 350 | 168.2 | 184.8 | | | 147.6 | 160.1 |
| 300 | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| LONG | -76.61 | -75.75 | -73.62 | -72.34 | -70.87 | -70.03 |
| LAT | -54.74 | -56.63 | -60.38 | -62.23 | -64.06 | -65.00 |
| QUAL | 33 | 33 | 33 | 23 | 23 | 21 |

PASS 4749 AT SOLANT, 63 912

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 65812 |
| 1000 | 0.036 |
| 950 | 0.036 |
| 900 | 0.037 |
| 850 | 0.041 |
| 800 | 0.047 |
| 750 | 0.051 |
| 700 | 0.056 |
| 650 | 0.060 |
| 600 | 0.071 |
| 550 | 0.097 |
| 500 | 0.129 |
| 450 | 0.176 |
| 400 | 0.300 |
| 350 | 0.483 |
| 300 | 0.681 |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 1988.3 |
| 900 | 1473.4 |
| 850 | 922.6 |
| 800 | 494.7 |
| 750 | 468.4 |
| 700 | 442.1 |
| 650 | 415.8 |
| 600 | 338.3 |
| 550 | 200.7 |
| 500 | 160.4 |
| 450 | 135.5 |
| 400 | 100.6 |
| 350 | 124.4 |
| 300 | 253.6 |

LONG -68.23
LAT -66.80

QUAL 31

PASS 4762 AT OTTAWA, 63 913

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 51346 | 51604 | 51639 | 51807 | 51917 | 51952 | 52028 |
| 1000 | 0.007 | 0.012 | 0.012 | 0.035 | 0.064 | 0.064 | 0.085 |
| 950 | 0.010 | 0.015 | 0.014 | 0.040 | 0.069 | 0.068 | 0.091 |
| 900 | 0.012 | 0.016 | 0.015 | 0.042 | 0.072 | 0.070 | 0.094 |
| 850 | 0.016 | 0.017 | 0.016 | 0.043 | 0.074 | 0.074 | 0.097 |
| 800 | 0.021 | 0.019 | 0.017 | 0.045 | 0.077 | 0.078 | 0.101 |
| 750 | 0.026 | 0.021 | 0.020 | 0.047 | 0.082 | 0.083 | 0.107 |
| 700 | 0.033 | 0.024 | 0.024 | 0.050 | 0.089 | 0.089 | 0.115 |
| 650 | 0.042 | 0.029 | 0.029 | 0.055 | 0.101 | 0.096 | 0.127 |
| 600 | 0.056 | 0.037 | 0.037 | 0.061 | 0.118 | 0.107 | 0.145 |
| 550 | 0.078 | 0.049 | 0.047 | 0.071 | | 0.127 | 0.181 |
| 500 | 0.109 | 0.065 | 0.062 | 0.087 | | 0.161 | 0.246 |
| 450 | 0.157 | 0.088 | 0.084 | 0.114 | | 0.243 | 0.379 |
| 400 | 0.230 | 0.123 | 0.118 | 0.161 | | 0.406 | 0.651 |
| 350 | 0.332 | 0.172 | 0.164 | 0.253 | | 0.721 | 1.005 |
| 300 | 0.464 | 0.227 | 0.218 | | | 1.017 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 194.1 | 424.9 | 735.6 | 787.5 | 1090.9 | 1577.3 | 1240.5 |
| 900 | 190.4 | 580.6 | 929.1 | 2409.6 | 1798.3 | 1340.0 | 1818.9 |
| 850 | 193.4 | 664.0 | 693.5 | 1707.9 | 1644.1 | 1013.9 | 1444.8 |
| 800 | 202.9 | 576.7 | 480.9 | 1147.3 | 1052.5 | 880.7 | 1000.7 |
| 750 | 212.3 | 437.1 | 334.7 | 884.9 | 738.4 | 765.1 | 784.2 |
| 700 | 209.9 | 306.2 | 292.6 | 690.5 | 485.7 | 662.1 | 619.3 |
| 650 | 199.3 | 221.1 | 250.4 | 544.1 | 391.3 | 546.7 | 455.2 |
| 600 | 160.5 | 197.5 | 221.2 | 408.5 | 300.9 | 398.0 | 323.1 |
| 550 | 152.1 | 183.7 | 199.6 | 304.3 | | 254.2 | 191.4 |
| 500 | 144.1 | 174.8 | 179.6 | 221.4 | | 168.2 | 144.7 |
| 450 | 137.7 | 159.6 | 161.7 | 170.7 | | 107.3 | 96.0 |
| 400 | 136.5 | 150.2 | 155.7 | 129.2 | | 91.2 | 99.7 |
| 350 | 144.7 | 170.2 | 166.6 | 109.5 | | 112.6 | 171.2 |
| 300 | 167.5 | 254.5 | 209.7 | | | 197.9 | |
| LONG | -80.49 | -77.80 | -77.27 | -76.11 | -75.34 | -74.99 | -74.66 |
| LAT | 54.40 | 46.79 | 44.84 | 39.93 | 36.01 | 34.04 | 32.01 |
| QUAL | 21 | 32 | 32 | 33 | 33 | 22 | 32 |

PASS 4762 AT QUITOE, 63 913

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 52858 | 52915 | 52950 | 53025 | 53118 | 53135 | 53228 |
| 1000 | 0.106 | 0.083 | 0.080 | 0.111 | 0.087 | 0.093 | 0.094 |
| 950 | 0.113 | 0.091 | 0.087 | 0.120 | 0.094 | 0.100 | 0.102 |
| 900 | 0.118 | 0.097 | 0.093 | 0.125 | 0.100 | 0.105 | 0.109 |
| 850 | 0.122 | 0.102 | 0.098 | 0.130 | 0.105 | 0.110 | 0.117 |
| 800 | 0.129 | 0.108 | 0.104 | 0.137 | 0.113 | 0.118 | 0.128 |
| 750 | 0.138 | 0.116 | 0.112 | 0.148 | 0.122 | 0.130 | 0.142 |
| 700 | 0.151 | 0.127 | 0.125 | 0.159 | 0.134 | 0.145 | 0.165 |
| 650 | 0.173 | 0.144 | 0.139 | 0.177 | 0.148 | 0.167 | 0.198 |
| 600 | 0.207 | 0.169 | 0.159 | 0.218 | 0.174 | 0.203 | 0.249 |
| 550 | 0.261 | 0.221 | 0.196 | 0.293 | 0.229 | 0.261 | 0.338 |
| 500 | 0.370 | 0.326 | 0.292 | 0.454 | 0.308 | 0.379 | 0.563 |
| 450 | 0.602 | 0.538 | 0.521 | 0.753 | 0.588 | 0.746 | 1.119 |
| 400 | | 1.031 | 0.972 | 1.476 | 1.444 | 1.691 | 2.221 |
| 350 | | 1.934 | 1.796 | 2.731 | 3.117 | | |
| 300 | | | 3.308 | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 1118.3 | 716.4 | 727.6 | 1188.7 | 769.6 | 938.3 | 721.1 |
| 900 | 1322.4 | 849.2 | 881.3 | 1249.9 | 935.3 | 981.3 | 709.6 |
| 850 | 1112.5 | 852.9 | 931.2 | 1060.2 | 808.1 | 802.7 | 620.7 |
| 800 | 844.1 | 851.8 | 753.2 | 816.0 | 679.2 | 644.7 | 536.1 |
| 750 | 666.2 | 642.5 | 610.1 | 660.0 | 588.2 | 516.9 | 439.8 |
| 700 | 453.2 | 470.2 | 485.8 | 574.6 | 532.8 | 403.6 | 310.4 |
| 650 | 328.3 | 351.8 | 424.1 | 326.8 | 427.6 | 311.1 | 250.1 |
| 600 | 253.2 | 261.0 | 313.6 | 207.1 | 231.0 | 242.5 | 197.4 |
| 550 | 193.7 | 162.2 | 190.0 | 145.8 | 180.6 | 178.3 | 140.4 |
| 500 | 135.9 | 118.0 | 102.4 | 107.2 | 128.7 | 115.4 | 85.6 |
| 450 | 69.2 | 89.7 | 81.7 | 87.6 | 70.8 | 66.0 | 68.8 |
| 400 | | 77.4 | 83.2 | 78.2 | 58.4 | 68.0 | 110.0 |
| 350 | | 87.0 | 80.1 | 76.4 | 63.2 | | |
| 300 | | | 81.0 | | | | |
| LONG | -71.33 | -71.24 | -71.05 | -70.87 | -70.59 | -70.50 | -70.21 |
| LAT | 3.20 | 2.24 | 0.27 | -1.72 | -4.72 | -5.68 | -8.68 |
| QUAL | 33 | 33 | 23 | 33 | 33 | 33 | 32 |

PASS 4762 AT QUITCE, 63 913

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 53303 | 53338 | 53413 | 53524 |
| 1000 | 0.084 | 0.079 | 0.090 | 0.088 |
| 950 | 0.093 | 0.091 | 0.100 | 0.098 |
| 900 | 0.100 | 0.100 | 0.107 | 0.106 |
| 850 | 0.109 | 0.110 | 0.118 | 0.115 |
| 800 | 0.121 | 0.124 | 0.136 | 0.130 |
| 750 | 0.137 | 0.142 | 0.154 | 0.149 |
| 700 | 0.160 | 0.165 | 0.179 | 0.171 |
| 650 | 0.198 | 0.202 | 0.217 | 0.208 |
| 600 | 0.252 | 0.257 | 0.281 | 0.264 |
| 550 | 0.347 | 0.355 | 0.392 | 0.380 |
| 500 | 0.604 | 0.602 | 0.643 | 0.645 |
| 450 | | | 1.577 | 1.217 |
| 400 | | | | 2.405 |
| 350 | | | | |
| 300 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | |
|---|---|---|---|---|
| 950 | 597.0 | 480.8 | 660.8 | 556.9 |
| 900 | 646.9 | 516.1 | 583.9 | 641.6 |
| 850 | 527.5 | 448.7 | 470.2 | 505.3 |
| 800 | 445.9 | 402.4 | 393.4 | 418.2 |
| 750 | 385.8 | 358.9 | 355.6 | 363.8 |
| 700 | 266.9 | 286.5 | 296.4 | 316.5 |
| 650 | 233.5 | 230.1 | 229.2 | 231.6 |
| 600 | 194.5 | 188.8 | 177.6 | 176.9 |
| 550 | 126.3 | 133.7 | 134.7 | 118.7 |
| 500 | 67.3 | 72.8 | 83.3 | 89.7 |
| 450 | | | 89.8 | 73.4 |
| 400 | | | | 76.8 |
| 350 | | | | |
| 300 | | | | |

| | | | | |
|---|---|---|---|---|
| LONG | -70.02 | -69.82 | -69.61 | -69.18 |
| LAT | -10.66 | -12.64 | -14.61 | -18.63 |
| QUAL | 33 | 33 | 33 | 33 |

PASS 4762 AT AGASTA, 63 913

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 53915 | 53950 | 54413 | 54448 | 54523 | 54545 | 54630 | 54740 |
| 1000 | 0.092 | 0.091 | 0.078 | 0.087 | 0.095 | 0.088 | 0.089 | 0.042 |
| 950 | 0.097 | 0.097 | 0.082 | 0.093 | 0.100 | 0.093 | 0.094 | 0.045 |
| 900 | 0.100 | 0.101 | 0.087 | 0.098 | 0.104 | 0.096 | 0.097 | 0.049 |
| 850 | 0.103 | 0.106 | 0.092 | 0.103 | 0.107 | 0.100 | 0.101 | 0.053 |
| 800 | 0.108 | 0.112 | 0.097 | 0.108 | 0.112 | 0.106 | 0.106 | 0.057 |
| 750 | 0.114 | 0.119 | 0.104 | 0.114 | 0.117 | 0.112 | 0.112 | 0.062 |
| 700 | 0.123 | 0.129 | 0.111 | 0.122 | 0.124 | 0.121 | 0.121 | 0.068 |
| 650 | 0.138 | 0.144 | 0.119 | 0.132 | 0.136 | 0.133 | 0.135 | 0.074 |
| 600 | 0.165 | 0.171 | 0.129 | 0.146 | 0.154 | 0.150 | 0.158 | 0.082 |
| 550 | 0.212 | 0.227 | 0.144 | 0.171 | 0.184 | 0.180 | 0.199 | 0.096 |
| 500 | 0.315 | 0.347 | 0.174 | 0.226 | 0.252 | 0.235 | 0.275 | 0.119 |
| 450 | 0.525 | 0.626 | 0.240 | 0.373 | 0.410 | 0.359 | 0.425 | 0.178 |
| 400 | 0.958 | 0.970 | 0.464 | 0.635 | 0.688 | 0.572 | 0.665 | 0.293 |
| 350 | 1.431 | | 0.836 | 0.967 | 1.054 | 0.889 | 0.941 | 0.557 |
| 300 | | | | | | | | 0.805 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 1394.5 | 1107.1 | 912.4 | 875.0 | 1223.4 | 1128.9 | 1282.8 | 642.8 |
| 900 | 1514.9 | 1101.9 | 925.0 | 1029.0 | 1496.5 | 1422.8 | 1459.8 | 619.1 |
| 850 | 1199.2 | 1009.5 | 909.7 | 1038.4 | 1374.5 | 1099.5 | 1277.8 | 655.0 |
| 800 | 1033.0 | 842.6 | 826.5 | 928.9 | 1154.9 | 868.2 | 985.0 | 631.6 |
| 750 | 866.7 | 699.1 | 763.8 | 811.5 | 977.9 | 754.4 | 762.8 | 592.0 |
| 700 | 587.5 | 571.9 | 733.0 | 719.5 | 725.1 | 637.2 | 566.7 | 545.7 |
| 650 | 367.5 | 396.1 | 663.6 | 586.9 | 491.2 | 501.9 | 403.0 | 496.1 |
| 600 | 252.6 | 235.3 | 552.8 | 408.2 | 350.1 | 336.8 | 266.3 | 421.3 |
| 550 | 170.9 | 152.3 | 383.1 | 253.8 | 218.7 | 222.7 | 181.4 | 281.0 |
| 500 | 114.3 | 101.2 | 204.9 | 138.5 | 131.3 | 156.5 | 142.2 | 182.7 |
| 450 | 90.0 | 91.8 | 122.8 | 96.7 | 100.2 | 112.2 | 120.1 | 108.2 |
| 400 | 99.7 | 139.3 | 77.9 | 95.9 | 115.6 | 112.1 | 122.0 | 88.9 |
| 350 | 167.7 | | 120.2 | 523.6 | 404.7 | 158.2 | 372.3 | 95.9 |
| 300 | | | | | | | | 501.7 |
| LONG | -67.47 | -67.16 | -63.86 | -63.25 | -62.56 | -62.10 | -61.03 | -59.06 |
| LAT | -31.61 | -33.57 | -48.14 | -50.07 | -51.98 | -53.17 | -55.61 | -59.57 |
| QUAL | 32 | 33 | 21 | 21 | 21 | 31 | 32 | 21 |

PASS 4762 AT SOLANT, 63 913

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 53805 | 53840 | 53915 | 53950 | 54025 | 54413 | 54448 | 54523 |
| 1000 | 0.094 | 0.082 | 0.092 | 0.085 | 0.099 | 0.083 | 0.091 | 0.096 |
| 950 | 0.100 | 0.087 | 0.098 | 0.090 | 0.105 | 0.087 | 0.095 | 0.099 |
| 900 | 0.103 | 0.090 | 0.102 | 0.093 | 0.109 | 0.091 | 0.099 | 0.102 |
| 850 | 0.108 | 0.094 | 0.106 | 0.097 | 0.113 | 0.096 | 0.103 | 0.105 |
| 800 | 0.115 | 0.100 | 0.111 | 0.103 | 0.119 | 0.102 | 0.109 | 0.109 |
| 750 | 0.123 | 0.108 | 0.117 | 0.111 | 0.125 | 0.109 | 0.116 | 0.114 |
| 700 | 0.135 | 0.116 | 0.127 | 0.120 | 0.136 | 0.115 | 0.123 | 0.122 |
| 650 | 0.152 | 0.128 | 0.142 | 0.134 | 0.153 | 0.124 | 0.133 | 0.134 |
| 600 | 0.178 | 0.145 | 0.171 | 0.156 | 0.182 | 0.135 | 0.146 | 0.151 |
| 550 | 0.221 | 0.173 | 0.229 | 0.195 | 0.282 | 0.154 | 0.171 | 0.179 |
| 500 | 0.309 | 0.233 | 0.339 | 0.301 | 0.440 | 0.192 | 0.218 | 0.243 |
| 450 | 0.537 | 0.376 | 0.583 | 0.547 | 0.585 | 0.288 | 0.355 | 0.385 |
| 400 | 1.109 | 0.778 | 1.012 | 1.042 | 0.992 | 0.564 | 0.630 | 0.713 |
| 350 | | 1.452 | 1.383 | | | 0.930 | 1.004 | 1.058 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 1128.6 | 1287.3 | 1214.0 | 1321.6 | 1136.7 | 1015.9 | 1362.4 | 1891.9 |
| 900 | 1213.6 | 1151.8 | 1323.3 | 1344.9 | 1238.4 | 985.0 | 1136.7 | 1714.3 |
| 850 | 959.6 | 944.6 | 1155.0 | 1011.4 | 1181.3 | 910.8 | 979.5 | 1448.1 |
| 800 | 781.8 | 785.8 | 962.3 | 844.5 | 1034.8 | 810.8 | 900.0 | 1170.9 |
| 750 | 648.9 | 683.0 | 753.5 | 688.8 | 794.4 | 812.6 | 810.1 | 930.2 |
| 700 | 490.5 | 591.9 | 551.7 | 557.4 | 506.0 | 755.6 | 733.4 | 672.2 |
| 650 | 360.1 | 482.4 | 378.3 | 402.0 | 348.4 | 655.8 | 603.6 | 478.9 |
| 600 | 284.5 | 355.7 | 210.2 | 286.2 | 237.1 | 482.4 | 437.4 | 375.8 |
| 550 | 205.9 | 233.8 | 151.0 | 178.8 | 119.9 | 316.7 | 271.1 | 227.8 |
| 500 | 125.6 | 127.7 | 112.6 | 97.5 | 119.6 | 161.5 | 146.0 | 140.6 |
| 450 | 76.5 | 92.0 | 88.6 | 70.2 | 124.8 | 99.6 | 96.4 | 97.5 |
| 400 | 83.7 | 68.5 | 113.2 | 141.3 | 138.8 | 82.5 | 95.8 | 90.5 |
| 350 | | 110.9 | 348.4 | | | 223.6 | 455.9 | 359.5 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -68.06 | -67.77 | -67.47 | -67.16 | -66.82 | -63.86 | -63.25 | -62.56 |
| LAT | -27.68 | -29.65 | -31.61 | -33.57 | -35.52 | -48.14 | -50.07 | -51.98 |
| QUAL | 33 | 33 | 22 | 22 | 32 | 11 | 21 | 21 |

PASS 4762 AT SOLANT, 63 913

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 54536 | 54631 | 54741 | 54816 | 54851 | 54926 | 54944 |
| 1000 | 0.113 | 0.095 | 0.038 | 0.037 | 0.034 | 0.032 | 0.027 |
| 950 | 0.116 | 0.098 | 0.041 | 0.040 | 0.036 | 0.034 | 0.029 |
| 900 | 0.120 | 0.100 | 0.044 | 0.043 | 0.038 | 0.036 | 0.031 |
| 850 | 0.124 | 0.104 | 0.048 | 0.046 | 0.040 | 0.038 | 0.033 |
| 800 | 0.130 | 0.109 | 0.052 | 0.051 | 0.042 | 0.041 | 0.037 |
| 750 | 0.139 | 0.115 | 0.057 | 0.056 | 0.045 | 0.044 | 0.041 |
| 700 | 0.152 | 0.126 | 0.062 | 0.061 | 0.049 | 0.049 | 0.047 |
| 650 | 0.172 | 0.142 | 0.068 | 0.067 | 0.054 | 0.054 | 0.054 |
| 600 | 0.203 | 0.169 | 0.076 | 0.077 | 0.064 | 0.062 | 0.065 |
| 550 | 0.252 | 0.218 | 0.092 | 0.093 | 0.081 | 0.079 | 0.082 |
| 500 | 0.336 | 0.300 | 0.116 | 0.119 | 0.100 | 0.106 | 0.115 |
| 450 | 0.493 | 0.472 | 0.165 | 0.172 | 0.150 | 0.159 | 0.181 |
| 400 | 0.766 | 0.733 | 0.281 | 0.298 | 0.233 | 0.290 | 0.325 |
| 350 | 0.994 | 0.952 | 0.554 | 0.579 | 0.478 | 0.551 | 0.550 |
| 300 | | | 0.806 | 0.772 | 0.761 | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 1793.7 | 2258.0 | 696.6 | 776.9 | 951.2 | 821.6 | 1009.1 |
| 900 | 1530.2 | 1569.8 | 629.4 | 633.9 | 963.1 | 795.7 | 743.1 |
| 850 | 1190.7 | 1262.0 | 627.3 | 574.1 | 839.8 | 751.9 | 566.2 |
| 800 | 879.4 | 986.0 | 593.9 | 554.6 | 746.7 | 658.6 | 457.7 |
| 750 | 683.3 | 721.4 | 571.8 | 547.5 | 665.8 | 574.2 | 424.4 |
| 700 | 524.2 | 524.2 | 553.1 | 515.1 | 587.9 | 506.6 | 391.0 |
| 650 | 362.8 | 364.2 | 485.8 | 460.7 | 469.3 | 430.5 | 312.4 |
| 600 | 267.6 | 247.5 | 335.7 | 314.1 | 194.4 | 322.9 | 250.0 |
| 550 | 211.3 | 180.9 | 242.8 | 234.8 | 203.9 | 177.7 | 188.8 |
| 500 | 153.8 | 138.9 | 183.0 | 174.7 | 181.0 | 150.0 | 134.1 |
| 450 | 118.5 | 112.6 | 120.7 | 118.3 | 122.0 | 114.3 | 103.1 |
| 400 | 142.0 | 129.1 | 85.4 | 82.0 | 93.1 | 81.8 | 87.9 |
| 350 | 446.9 | 646.5 | 89.4 | 96.8 | 85.3 | 98.5 | 135.9 |
| 300 | | | 1551.5 | 812.4 | 426.0 | | |
| LONG | -61.87 | -61.01 | -59.03 | -57.84 | -56.50 | -54.89 | -54.02 |
| LAT | -53.77 | -55.66 | -59.42 | -61.29 | -63.13 | -64.96 | -65.89 |
| QUAL | 31 | 31 | 11 | 11 | 11 | 22 | 22 |

PASS 4762 AT SULANT, 63 913

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 550.9 |
| 1000 | 0.026 |
| 950 | 0.028 |
| 900 | 0.030 |
| 850 | 0.033 |
| 800 | 0.036 |
| 750 | 0.040 |
| 700 | 0.046 |
| 650 | 0.055 |
| 600 | 0.069 |
| 550 | 0.090 |
| 500 | 0.127 |
| 450 | 0.200 |
| 400 | 0.324 |
| 350 | 0.521 |
| 300 | |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 677.9 |
| 900 | 721.3 |
| 850 | 572.1 |
| 800 | 499.0 |
| 750 | 417.5 |
| 700 | 313.4 |
| 650 | 259.2 |
| 600 | 211.7 |
| 550 | 168.3 |
| 500 | 126.9 |
| 450 | 113.9 |
| 400 | 104.4 |
| 350 | 148.3 |
| 300 | |

LONG -52.03
LAT -67.08

QUAL 32

PASS 4776 AT RESLUT, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 54258 | 54315 | 54333 | 54350 | 54408 | 54426 | 54443 | 54501 |
| 1000 | 0.109 | 0.103 | 0.107 | 0.089 | 0.106 | 0.100 | 0.105 | 0.070 |
| 950 | 0.124 | 0.119 | 0.122 | 0.104 | 0.127 | 0.120 | 0.122 | 0.082 |
| 900 | 0.144 | 0.141 | 0.143 | 0.124 | 0.153 | 0.145 | 0.146 | 0.097 |
| 850 | 0.169 | 0.166 | 0.167 | 0.147 | 0.183 | 0.176 | 0.174 | 0.117 |
| 800 | 0.200 | 0.195 | 0.196 | 0.176 | 0.218 | 0.212 | 0.206 | 0.142 |
| 750 | 0.238 | 0.241 | 0.243 | 0.218 | 0.269 | 0.263 | 0.257 | 0.177 |
| 700 | 0.297 | 0.298 | 0.306 | 0.270 | 0.333 | 0.332 | 0.322 | 0.219 |
| 650 | 0.370 | 0.367 | 0.385 | 0.349 | 0.416 | 0.423 | 0.407 | 0.291 |
| 600 | 0.469 | 0.476 | 0.504 | 0.451 | 0.547 | 0.560 | 0.541 | 0.390 |
| 550 | 0.594 | 0.624 | 0.660 | 0.597 | 0.717 | 0.745 | 0.711 | 0.530 |
| 500 | 0.770 | 0.847 | 0.879 | 0.812 | 0.945 | 1.006 | 0.945 | 0.714 |
| 450 | 1.020 | 1.164 | 1.173 | 1.112 | 1.270 | 1.352 | 1.259 | 0.973 |
| 400 | 1.356 | 1.595 | 1.565 | 1.511 | 1.692 | 1.794 | 1.655 | 1.330 |
| 350 | 1.801 | 2.158 | 2.091 | 2.033 | 2.232 | 2.379 | 2.179 | 1.756 |
| 300 | 2.437 | 2.857 | 2.767 | 2.715 | | 3.009 | 2.811 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 352.4 | 314.1 | 340.1 | 304.1 | 270.6 | 264.6 | 302.6 | 299.3 |
| 900 | 314.4 | 303.4 | 313.0 | 285.4 | 274.6 | 265.4 | 292.5 | 285.7 |
| 850 | 299.6 | 284.7 | 291.6 | 272.5 | 266.7 | 258.1 | 274.1 | 262.1 |
| 800 | 284.8 | 266.5 | 270.2 | 258.4 | 255.0 | 241.6 | 253.0 | 236.7 |
| 750 | 268.8 | 252.9 | 249.9 | 237.2 | 241.6 | 227.8 | 236.9 | 223.7 |
| 700 | 247.0 | 239.4 | 229.9 | 216.0 | 228.2 | 214.7 | 220.9 | 210.6 |
| 650 | 225.3 | 225.8 | 210.1 | 204.4 | 214.1 | 201.3 | 205.8 | 187.4 |
| 600 | 214.0 | 203.7 | 194.6 | 193.3 | 197.3 | 186.6 | 193.6 | 167.9 |
| 550 | 205.3 | 177.9 | 182.3 | 176.2 | 183.9 | 173.7 | 182.3 | 168.3 |
| 500 | 189.9 | 164.6 | 177.6 | 161.8 | 176.7 | 168.4 | 175.2 | 166.7 |
| 450 | 177.9 | 160.5 | 175.6 | 161.8 | 174.6 | 175.8 | 181.6 | 161.8 |
| 400 | 179.7 | 162.0 | 173.2 | 166.0 | 176.9 | 177.0 | 182.1 | 173.0 |
| 350 | 170.5 | 171.6 | 175.7 | 171.3 | 186.3 | 192.0 | 190.1 | 192.6 |
| 300 | 167.9 | 202.7 | 182.3 | 186.1 | | 270.2 | 207.2 | |
| LONG | -131.10 | -127.71 | -124.28 | -121.04 | -118.06 | -115.65 | -113.38 | -111.00 |
| LAT | 78.42 | 77.81 | 77.14 | 76.50 | 75.78 | 74.99 | 74.24 | 73.44 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 4776 AT RESLUT, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 54518 | 54537 | 54553 | 54611 | 54628 | 54646 | 54703 | 54721 |
| 1000 | 0.062 | 0.053 | 0.070 | 0.108 | 0.174 | 0.115 | 0.160 | 0.122 |
| 950 | 0.072 | 0.068 | 0.083 | 0.122 | 0.195 | 0.133 | 0.179 | 0.141 |
| 900 | 0.085 | 0.081 | 0.096 | 0.142 | 0.214 | 0.150 | 0.198 | 0.164 |
| 850 | 0.104 | 0.099 | 0.113 | 0.167 | 0.237 | 0.170 | 0.218 | 0.193 |
| 800 | 0.126 | 0.123 | 0.134 | 0.196 | 0.269 | 0.197 | 0.246 | 0.228 |
| 750 | 0.154 | 0.150 | 0.167 | 0.243 | 0.308 | 0.234 | 0.279 | 0.269 |
| 700 | 0.188 | 0.191 | 0.226 | 0.309 | 0.355 | 0.279 | 0.317 | 0.320 |
| 650 | 0.265 | 0.265 | 0.301 | 0.391 | 0.428 | 0.331 | 0.365 | 0.381 |
| 600 | 0.360 | 0.357 | 0.398 | 0.501 | 0.519 | 0.407 | 0.424 | 0.453 |
| 550 | 0.491 | 0.483 | 0.528 | 0.634 | 0.628 | 0.505 | 0.512 | 0.535 |
| 500 | 0.655 | 0.639 | 0.705 | 0.838 | 0.790 | 0.625 | 0.635 | 0.633 |
| 450 | 0.910 | 0.883 | 0.977 | 1.120 | 1.015 | 0.794 | 0.827 | 0.784 |
| 400 | 1.236 | 1.216 | 1.334 | 1.491 | 1.374 | 1.029 | 1.097 | 0.980 |
| 350 | 1.614 | 1.628 | | 1.966 | 1.873 | 1.363 | 1.444 | 1.264 |
| 300 | | | | 2.529 | 2.517 | | 1.891 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 288.1 | 241.4 | 313.0 | 376.8 | 504.6 | 381.4 | 501.4 | 329.0 |
| 900 | 265.3 | 243.3 | 299.0 | 321.0 | 487.6 | 381.2 | 480.8 | 309.3 |
| 850 | 255.2 | 236.1 | 277.0 | 295.7 | 424.3 | 344.6 | 441.7 | 307.8 |
| 800 | 245.0 | 228.9 | 255.0 | 270.5 | 392.3 | 323.3 | 422.0 | 306.4 |
| 750 | 234.9 | 221.7 | 233.8 | 250.4 | 360.3 | 308.6 | 402.8 | 304.9 |
| 700 | 223.3 | 211.0 | 213.9 | 232.3 | 328.2 | 293.9 | 383.6 | 291.2 |
| 650 | 195.7 | 191.4 | 194.0 | 214.3 | 301.7 | 279.2 | 346.6 | 282.9 |
| 600 | 168.1 | 171.7 | 180.5 | 206.6 | 275.7 | 262.0 | 300.4 | 280.4 |
| 550 | 165.0 | 169.1 | 175.3 | 198.9 | 249.8 | 243.6 | 260.3 | 278.6 |
| 500 | 165.0 | 168.6 | 166.6 | 179.9 | 216.1 | 224.9 | 222.9 | 271.6 |
| 450 | 157.7 | 157.9 | 159.2 | 177.2 | 187.8 | 203.9 | 186.1 | 240.3 |
| 400 | 177.0 | 166.5 | 174.8 | 179.9 | 169.9 | 181.5 | 180.3 | 208.7 |
| 350 | 202.7 | 182.5 | | 192.5 | 165.3 | 157.9 | 184.7 | 176.7 |
| 300 | | | | 228.8 | 191.3 | | 181.3 | |
| LONG | -109.59 | -107.58 | -106.06 | -104.62 | -103.43 | -102.18 | -101.04 | -100.09 |
| LAT | 72.63 | 71.71 | 70.95 | 70.06 | 69.20 | 68.29 | 67.43 | 66.50 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 31 | 33 |

PASS 4776 AT RESLUT, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 54739 | 54756 | 54814 | 54831 | 54849 | 54906 | 54941 | 55016 |
| 1000 | 0.171 | 0.133 | 0.164 | 0.117 | 0.126 | 0.125 | 0.121 | 0.093 |
| 950 | 0.193 | 0.148 | 0.179 | 0.132 | 0.141 | 0.144 | 0.132 | 0.111 |
| 900 | 0.221 | 0.163 | 0.192 | 0.145 | 0.154 | 0.163 | 0.144 | 0.127 |
| 850 | 0.254 | 0.179 | 0.209 | 0.159 | 0.168 | 0.182 | 0.159 | 0.146 |
| 800 | 0.294 | 0.199 | 0.231 | 0.176 | 0.184 | 0.204 | 0.180 | 0.170 |
| 750 | 0.339 | 0.221 | 0.256 | 0.195 | 0.204 | 0.236 | 0.207 | 0.201 |
| 700 | 0.394 | 0.258 | 0.300 | 0.237 | 0.235 | 0.284 | 0.240 | 0.239 |
| 650 | 0.460 | 0.306 | 0.358 | 0.294 | 0.273 | 0.345 | 0.278 | 0.293 |
| 600 | 0.534 | 0.366 | 0.430 | 0.366 | 0.328 | 0.420 | 0.330 | 0.369 |
| 550 | 0.618 | 0.440 | 0.517 | 0.445 | 0.397 | 0.511 | 0.420 | 0.482 |
| 500 | 0.711 | 0.527 | 0.619 | 0.536 | 0.515 | 0.616 | 0.567 | 0.628 |
| 450 | 0.838 | 0.630 | 0.786 | 0.659 | 0.669 | 0.763 | 0.813 | 0.828 |
| 400 | 0.999 | 0.814 | 1.003 | 0.844 | 0.859 | 0.969 | 1.096 | 1.078 |
| 350 | 1.203 | 1.058 | 1.281 | 1.080 | 1.077 | 1.196 | 1.377 | |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 393.4 | | 677.4 | | 527.2 | | 614.2 | 332.5 |
| 900 | 355.3 | 504.3 | 609.0 | 517.8 | 555.1 | 416.7 | 532.5 | 353.6 |
| 850 | 352.5 | 485.4 | 539.7 | 478.5 | 525.5 | 401.6 | 457.8 | 336.5 |
| 800 | 350.1 | 438.3 | 476.5 | 424.4 | 480.0 | 365.3 | 409.8 | 309.7 |
| 750 | 347.7 | 391.3 | 413.2 | 370.3 | 430.8 | 332.3 | 361.9 | 289.5 |
| 700 | 344.4 | 355.9 | 356.9 | 329.0 | 372.4 | 302.7 | 330.8 | 269.7 |
| 650 | 340.2 | 321.7 | 301.7 | 289.5 | 314.0 | 273.1 | 301.0 | 237.4 |
| 600 | 336.4 | 287.6 | 273.0 | 252.7 | 273.1 | 260.2 | 264.0 | 201.6 |
| 550 | 333.7 | 274.0 | 260.9 | 248.5 | 233.0 | 254.7 | 207.7 | 197.3 |
| 500 | 330.6 | 260.3 | 248.7 | 244.4 | 199.8 | 249.1 | 163.7 | 193.0 |
| 450 | 298.9 | 244.9 | 222.6 | 231.9 | 201.5 | 233.4 | 156.0 | 189.7 |
| 400 | 274.4 | 205.0 | 216.0 | 209.5 | 213.9 | 230.4 | 198.3 | 199.1 |
| 350 | 256.0 | 189.1 | 239.1 | 203.7 | 229.9 | 373.8 | 283.7 | |
| 300 | | | | | | | | |
| LONG | -99.13 | -98.23 | -97.45 | -96.75 | -96.01 | -95.36 | -94.21 | -93.16 |
| LAT | 65.56 | 64.68 | 63.73 | 62.83 | 61.87 | 60.97 | 59.08 | 57.18 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 31 | 32 | 33 |

PASS 4776 AT RESLUT, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 55052 | 55109 | 55127 |
| 1000 | 0.071 | 0.063 | 0.054 |
| 950 | 0.084 | 0.075 | 0.067 |
| 900 | 0.102 | 0.086 | 0.077 |
| 850 | 0.121 | 0.100 | 0.091 |
| 800 | 0.143 | 0.116 | 0.108 |
| 750 | 0.170 | 0.136 | 0.129 |
| 700 | 0.202 | 0.160 | 0.159 |
| 650 | 0.240 | 0.193 | 0.196 |
| 600 | 0.287 | 0.231 | 0.244 |
| 550 | 0.349 | 0.292 | 0.302 |
| 500 | 0.451 | 0.373 | 0.393 |
| 450 | 0.587 | 0.515 | 0.526 |
| 400 | 0.782 | 0.708 | 0.758 |
| 350 | 1.024 | 0.944 | 1.076 |
| 300 | 1.265 | 1.160 | 1.440 |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 286.2 | 329.1 | 295.2 |
| 900 | 278.5 | 333.7 | 306.0 |
| 850 | 283.0 | 327.9 | 296.7 |
| 800 | 287.5 | 318.3 | 287.4 |
| 750 | 289.2 | 306.2 | 277.1 |
| 700 | 289.7 | 292.3 | 258.0 |
| 650 | 290.2 | 269.4 | 239.0 |
| 600 | 261.8 | 246.5 | 224.3 |
| 550 | 223.6 | 216.2 | 210.1 |
| 500 | 207.9 | 184.6 | 187.9 |
| 450 | 192.1 | 169.7 | 162.4 |
| 400 | 189.0 | 170.1 | 147.0 |
| 350 | 219.0 | 202.2 | 159.2 |
| 300 | 458.6 | 511.4 | 313.2 |
| LONG | -92.20 | -91.79 | -91.40 |
| LAT | 55.22 | 54.30 | 53.31 |
| QUAL | 31 | 11 | 31 |

PASS 4776 AT OTTAWA, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 55144 | 55306 | 55341 | 55416 | 55618 | 55653 | 55729 |
| 1000 | 0.064 | 0.039 | 0.025 | 0.027 | 0.043 | 0.070 | 0.089 |
| 950 | 0.075 | 0.045 | 0.031 | 0.033 | 0.050 | 0.077 | 0.096 |
| 900 | 0.083 | 0.053 | 0.038 | 0.040 | 0.054 | 0.080 | 0.100 |
| 850 | 0.095 | 0.063 | 0.046 | 0.048 | 0.059 | 0.083 | 0.105 |
| 800 | 0.112 | 0.076 | 0.055 | 0.060 | 0.066 | 0.092 | 0.113 |
| 750 | 0.132 | 0.091 | 0.064 | 0.075 | 0.076 | 0.103 | 0.122 |
| 700 | 0.156 | 0.110 | 0.081 | 0.093 | 0.087 | 0.118 | 0.141 |
| 650 | 0.192 | 0.133 | 0.101 | 0.118 | 0.102 | 0.139 | 0.166 |
| 600 | 0.238 | 0.163 | 0.132 | 0.149 | 0.137 | 0.176 | 0.206 |
| 550 | 0.308 | 0.206 | 0.176 | 0.186 | 0.196 | 0.247 | 0.293 |
| 500 | 0.406 | 0.273 | 0.243 | 0.249 | 0.298 | 0.363 | 0.441 |
| 450 | 0.550 | 0.371 | 0.335 | 0.334 | 0.485 | 0.602 | 0.664 |
| 400 | | 0.508 | 0.455 | 0.449 | 0.781 | 0.972 | 1.064 |
| 350 | | 0.658 | | 0.591 | | 1.401 | 1.552 |
| 300 | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 409.9 | 314.4 | | 303.9 | 574.8 | | 1181.4 |
| 900 | 429.0 | 294.1 | 261.7 | 270.2 | 553.7 | 1095.6 | 1010.9 |
| 850 | 341.8 | 279.6 | 265.7 | 249.2 | 501.6 | 884.5 | 818.7 |
| 800 | 306.1 | 277.4 | 262.2 | 242.7 | 401.9 | 450.0 | 669.6 |
| 750 | 288.2 | 275.1 | 258.6 | 236.2 | 351.6 | 402.7 | 522.2 |
| 700 | 269.9 | 272.9 | 235.3 | 229.7 | 309.6 | 339.5 | 409.1 |
| 650 | 245.3 | 258.4 | 211.6 | 220.4 | 267.6 | 267.2 | 296.0 |
| 600 | 220.7 | 229.2 | 189.1 | 210.7 | 178.2 | 180.7 | 191.6 |
| 550 | 196.2 | 203.0 | 167.6 | 201.0 | 133.3 | 138.3 | 149.1 |
| 500 | 177.8 | 180.0 | 163.6 | 189.5 | 114.7 | 119.9 | 126.0 |
| 450 | 174.8 | 173.6 | 164.4 | 177.6 | 105.0 | 109.0 | 117.8 |
| 400 | | 179.9 | 165.8 | 181.3 | 111.2 | 119.8 | 116.7 |
| 350 | | 209.1 | | 236.1 | | 158.4 | 151.9 |
| 300 | | | | | | | |
| LONG | -91.02 | -89.47 | -88.92 | -88.40 | -86.90 | -86.54 | -86.20 |
| LAT | 52.38 | 47.85 | 45.90 | 43.95 | 37.12 | 35.16 | 33.14 |
| QUAL | 23 | 33 | 33 | 21 | 23 | 13 | 13 |

PASS 4776 AT OTTAWA, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 55759 | 55839 |
| 1000 | 0.099 | 0.115 |
| 950 | 0.106 | 0.129 |
| 900 | 0.111 | 0.135 |
| 850 | 0.116 | 0.142 |
| 800 | 0.125 | 0.152 |
| 750 | 0.136 | 0.165 |
| 700 | 0.153 | 0.180 |
| 650 | 0.174 | 0.204 |
| 600 | 0.218 | 0.255 |
| 550 | 0.269 | 0.347 |
| 500 | 0.414 | 0.505 |
| 450 | 0.671 | 0.781 |
| 400 | 1.087 | 1.223 |
| 350 | | |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 1009.8 | |
| 900 | 1002.5 | 1001.5 |
| 850 | 832.2 | 848.0 |
| 800 | 666.8 | 726.2 |
| 750 | 522.6 | 606.7 |
| 700 | 425.5 | 480.2 |
| 650 | 328.4 | 331.5 |
| 600 | 199.4 | 186.3 |
| 550 | 170.0 | 156.9 |
| 500 | 111.2 | 131.0 |
| 450 | 103.4 | 117.0 |
| 400 | 115.0 | 134.1 |
| 350 | | |
| 300 | | |

| | | |
|---|---|---|
| LONG | -85.92 | -85.58 |
| LAT | 31.46 | 29.20 |
| QUAL | 13 | 33 |

PASS 4776 AT QUITOE, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 60357 | 60412 | 60630 | 60725 | 60830 | 60818 | 60911 | 60946 |
| 1000 | 0.109 | 0.098 | 0.106 | 0.088 | 0.099 | 0.098 | 0.090 | 0.117 |
| 950 | 0.115 | 0.106 | 0.113 | 0.095 | 0.108 | 0.107 | 0.101 | 0.127 |
| 900 | 0.119 | 0.110 | 0.120 | 0.101 | 0.114 | 0.113 | 0.112 | 0.136 |
| 850 | 0.122 | 0.113 | 0.123 | 0.106 | 0.119 | 0.120 | 0.123 | 0.148 |
| 800 | 0.127 | 0.116 | 0.128 | 0.112 | 0.126 | 0.126 | 0.136 | 0.166 |
| 750 | 0.135 | 0.120 | 0.134 | 0.118 | 0.135 | 0.138 | 0.151 | 0.182 |
| 700 | 0.142 | 0.126 | 0.143 | 0.126 | 0.148 | 0.150 | 0.168 | 0.206 |
| 650 | 0.151 | 0.135 | 0.156 | 0.136 | 0.166 | 0.170 | 0.185 | 0.247 |
| 600 | 0.166 | 0.149 | 0.177 | 0.151 | 0.189 | 0.199 | 0.218 | 0.310 |
| 550 | 0.190 | 0.171 | 0.212 | 0.178 | 0.223 | 0.258 | 0.338 | 0.438 |
| 500 | 0.246 | 0.217 | 0.279 | 0.227 | 0.351 | 0.418 | | 0.711 |
| 450 | 0.404 | 0.362 | 0.414 | 0.333 | 0.697 | | | |
| 400 | 0.742 | 0.676 | | 0.692 | 1.453 | | | |
| 350 | 1.248 | 1.121 | | 1.916 | | | | |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 1475.2 | 1159.9 | 1539.4 | 814.7 | 749.2 | 701.6 | 474.2 | 787.8 |
| 900 | 1615.1 | 1657.1 | 1140.7 | 919.8 | 1148.0 | 1167.5 | 495.4 | 654.4 |
| 850 | 1449.1 | 1786.0 | 1344.4 | 1031.6 | 978.3 | 840.0 | 520.9 | 546.5 |
| 800 | 1151.8 | 1630.5 | 1118.5 | 950.6 | 791.3 | 763.7 | 489.6 | 502.0 |
| 750 | 881.1 | 1227.7 | 931.9 | 823.9 | 636.2 | 552.4 | 476.7 | 498.3 |
| 700 | 794.1 | 923.1 | 730.5 | 731.0 | 501.9 | 486.1 | 521.5 | 295.3 |
| 650 | 684.1 | 598.8 | 487.5 | 574.7 | 418.6 | 376.3 | 435.7 | 249.9 |
| 600 | 475.7 | 455.1 | 342.4 | 389.9 | 342.5 | 259.8 | 180.6 | 184.2 |
| 550 | 297.0 | 293.9 | 228.3 | 251.9 | 229.6 | 149.8 | 190.9 | 128.4 |
| 500 | 141.3 | 162.2 | 160.4 | 176.8 | 86.9 | 97.0 | | 95.3 |
| 450 | 90.6 | 87.8 | 109.6 | 102.0 | 63.7 | | | |
| 400 | 88.5 | 76.1 | | 56.8 | 78.0 | | | |
| 350 | 119.0 | 114.2 | | 61.9 | | | | |
| 300 | | | | | | | | |
| LONG | -83.57 | -83.37 | -82.52 | -82.34 | -82.15 | -82.05 | -81.77 | -81.58 |
| LAT | 12.57 | 10.39 | 1.45 | -0.53 | -2.50 | -3.52 | -6.52 | -8.51 |
| QUAL | 33 | 32 | 23 | 22 | 33 | 33 | 33 | 33 |

PASS 4776 AT QUITOE, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 61038 | 61113 | 61148 | 61222 |
| 1000 | 0.092 | | 0.067 | 0.076 |
| 950 | 0.101 | | 0.074 | 0.082 |
| 900 | 0.107 | | 0.080 | 0.088 |
| 850 | 0.116 | | 0.088 | 0.095 |
| 800 | 0.131 | | 0.098 | 0.104 |
| 750 | 0.155 | | 0.113 | 0.119 |
| 700 | 0.184 | | 0.138 | 0.141 |
| 650 | 0.213 | | 0.177 | 0.181 |
| 600 | 0.358 | | 0.230 | 0.249 |
| 550 | | | 0.266 | 0.325 |
| 500 | | | 0.293 | 0.388 |
| 450 | | | | 0.469 |
| 400 | | | | 1.086 |
| 350 | | | | 2.173 |
| 300 | | | | 4.178 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 770.5 | | 604.6 | 685.6 |
| 900 | 741.0 | | 568.1 | 719.5 |
| 850 | 521.5 | | 486.6 | 588.0 |
| 800 | 363.2 | | 431.4 | 457.9 |
| 750 | 300.3 | | 296.1 | 346.1 |
| 700 | 315.6 | | 227.9 | 253.7 |
| 650 | 306.5 | | 200.0 | 179.3 |
| 600 | 252.9 | | 231.3 | 160.2 |
| 550 | | | 589.9 | 245.4 |
| 500 | | | 376.2 | 283.5 |
| 450 | | | | 206.1 |
| 400 | | | | 61.4 |
| 350 | | | | 69.2 |
| 300 | | | | 91.6 |
| LONG | -81.29 | -81.09 | -80.89 | -80.68 |
| LAT | -11.45 | -13.42 | -15.40 | -17.32 |
| QUAL | 33 | 33 | 33 | 33 |

PASS 4776 AT AGASTA, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 61616 | 61651 | 61726 | 61801 | 61826 | 61854 | 61929 | 62004 |
| 1000 | 0.113 | 0.117 | 0.113 | 0.104 | 0.110 | 0.115 | 0.109 | 0.109 |
| 950 | 0.120 | 0.121 | 0.117 | 0.108 | 0.115 | 0.122 | 0.114 | 0.112 |
| 900 | 0.125 | 0.125 | 0.122 | 0.114 | 0.121 | 0.125 | 0.119 | 0.115 |
| 850 | 0.132 | 0.130 | 0.127 | 0.118 | 0.126 | 0.129 | 0.123 | 0.118 |
| 800 | 0.139 | 0.137 | 0.134 | 0.124 | 0.134 | 0.137 | 0.128 | 0.124 |
| 750 | 0.147 | 0.146 | 0.142 | 0.134 | 0.143 | 0.145 | 0.136 | 0.131 |
| 700 | 0.158 | 0.158 | 0.153 | 0.146 | 0.157 | 0.153 | 0.146 | 0.138 |
| 650 | 0.176 | 0.174 | 0.170 | 0.158 | 0.175 | 0.163 | 0.160 | 0.148 |
| 600 | 0.209 | 0.202 | 0.191 | 0.176 | 0.211 | 0.192 | 0.184 | 0.163 |
| 550 | 0.278 | 0.255 | 0.249 | 0.219 | 0.285 | 0.247 | 0.224 | 0.185 |
| 500 | 0.419 | 0.392 | 0.379 | 0.288 | 0.415 | 0.448 | 0.335 | 0.286 |
| 450 | 0.680 | 0.615 | 0.529 | 0.482 | 0.656 | 0.669 | 0.562 | 0.534 |
| 400 | 1.151 | 1.050 | 0.974 | 0.827 | 1.022 | 1.016 | 0.943 | 0.815 |
| 350 | | 1.566 | 1.539 | 1.315 | | 1.409 | 1.282 | 1.268 |
| 300 | | | | 1.689 | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 1158.3 | 1593.6 | 1302.1 | 1441.5 | 1313.8 | | 1260.1 | 2182.9 |
| 900 | 1043.1 | 1256.0 | 1145.8 | 1089.0 | 1104.5 | 1690.5 | 1321.4 | 1853.7 |
| 850 | 957.5 | 1100.2 | 1018.1 | 1017.7 | 973.9 | 1261.9 | 1336.0 | 1459.4 |
| 800 | 869.2 | 944.3 | 901.8 | 897.0 | 806.2 | 879.6 | 962.9 | 1032.9 |
| 750 | 772.6 | 788.5 | 785.5 | 716.2 | 646.3 | 785.3 | 816.6 | 887.9 |
| 700 | 608.6 | 620.3 | 657.6 | 580.1 | 525.9 | 690.9 | 670.3 | 820.6 |
| 650 | 407.2 | 449.4 | 512.8 | 492.4 | 391.2 | 596.6 | 519.1 | 651.8 |
| 600 | 239.1 | 282.4 | 354.2 | 391.9 | 219.0 | 219.9 | 349.1 | 484.9 |
| 550 | 158.3 | 169.4 | 161.5 | 234.7 | 152.7 | 158.1 | 192.8 | 301.2 |
| 500 | 123.7 | 106.4 | 123.8 | 151.5 | 123.9 | 92.8 | 111.8 | 83.9 |
| 450 | 102.7 | 104.0 | 116.6 | 98.4 | 114.2 | 116.3 | 97.0 | 95.6 |
| 400 | 109.1 | 107.4 | 92.2 | 101.6 | 117.0 | 125.6 | 119.6 | 109.7 |
| 350 | | 151.4 | 177.4 | 133.1 | | 279.5 | 368.2 | 332.8 |
| 300 | | | | 498.7 | | | | |
| LONG | -79.00 | -78.70 | -78.37 | -78.03 | -77.76 | -77.45 | -77.03 | -76.58 |
| LAT | -30.48 | -32.44 | -34.39 | -36.35 | -37.74 | -39.30 | -41.24 | -43.18 |
| QUAL | 23 | 33 | 21 | 21 | 21 | 21 | 21 | 31 |

PASS 4776 AT AGASTA, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 62038 | 62114 | 62149 | 62254 | 62329 | 62405 | 62422 | 62457 |
| 1000 | 0.106 | 0.106 | 0.104 | 0.111 | 0.122 | 0.081 | 0.071 | 0.071 |
| 950 | 0.110 | 0.111 | 0.109 | 0.117 | 0.128 | 0.086 | 0.075 | 0.074 |
| 900 | 0.114 | 0.117 | 0.113 | 0.122 | 0.134 | 0.090 | 0.079 | 0.077 |
| 850 | 0.119 | 0.123 | 0.117 | 0.127 | 0.140 | 0.093 | 0.084 | 0.081 |
| 800 | 0.125 | 0.130 | 0.122 | 0.134 | 0.147 | 0.099 | 0.089 | 0.086 |
| 750 | 0.131 | 0.137 | 0.129 | 0.142 | 0.157 | 0.109 | 0.095 | 0.093 |
| 700 | 0.139 | 0.146 | 0.138 | 0.153 | 0.172 | 0.119 | 0.104 | 0.102 |
| 650 | 0.151 | 0.157 | 0.154 | 0.168 | 0.194 | 0.130 | 0.117 | 0.113 |
| 600 | 0.170 | 0.176 | 0.182 | 0.193 | 0.240 | 0.152 | 0.136 | 0.135 |
| 550 | 0.212 | 0.211 | 0.231 | 0.240 | 0.331 | 0.194 | 0.165 | 0.171 |
| 500 | 0.319 | 0.289 | 0.319 | 0.347 | 0.485 | 0.274 | 0.223 | 0.241 |
| 450 | 0.510 | 0.459 | 0.521 | 0.568 | 0.719 | 0.478 | 0.386 | 0.436 |
| 400 | 0.810 | 0.830 | 0.837 | 0.886 | 1.109 | 0.806 | 0.660 | 0.737 |
| 350 | 1.198 | 1.257 | 1.205 | 1.264 | | 1.237 | 1.127 | 1.153 |
| 300 | | | | | | | 1.435 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 1338.3 | 1003.0 | 1200.0 | | 1136.5 | | 879.1 | 1199.3 |
| 900 | 1233.9 | 969.2 | 1317.2 | 1148.7 | 1151.6 | 1255.4 | 855.8 | 1087.6 |
| 850 | 1136.4 | 947.9 | 1173.0 | 1030.1 | 1038.5 | 1031.7 | 812.4 | 900.6 |
| 800 | 995.1 | 914.0 | 1023.7 | 908.8 | 850.3 | 812.2 | 728.6 | 682.6 |
| 750 | 873.1 | 843.4 | 874.4 | 787.5 | 669.3 | 593.2 | 638.5 | 599.8 |
| 700 | 743.8 | 727.1 | 687.4 | 646.9 | 519.4 | 510.8 | 536.5 | 517.0 |
| 650 | 553.6 | 567.0 | 385.0 | 472.6 | 359.3 | 439.5 | 419.1 | 434.2 |
| 600 | 343.3 | 387.9 | 251.1 | 310.8 | 198.0 | 293.3 | 310.8 | 288.5 |
| 550 | 173.2 | 218.3 | 192.1 | 195.5 | 157.2 | 179.7 | 216.4 | 184.4 |
| 500 | 123.9 | 127.5 | 143.6 | 129.8 | 135.0 | 128.0 | 129.6 | 125.5 |
| 450 | 110.8 | 98.9 | 110.1 | 109.8 | 124.9 | 94.7 | 92.0 | 91.8 |
| 400 | 121.8 | 100.3 | 121.5 | 128.5 | 133.3 | 105.9 | 94.5 | 104.3 |
| 350 | 182.2 | 172.3 | 203.5 | 185.6 | | 180.3 | 127.4 | 170.9 |
| 300 | | | | | | | 908.9 | |
| LONG | -76.10 | -75.56 | -74.97 | -73.73 | -72.93 | -72.07 | -71.58 | -70.59 |
| LAT | -45.06 | -47.04 | -48.96 | -52.50 | -54.40 | -56.35 | -57.26 | -59.15 |
| QUAL | 21 | 21 | 21 | 11 | 31 | 31 | 31 | 22 |

PASS 4776 AT AGASTA, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 62532 |
| 1000 | 0.064 |
| 950 | 0.068 |
| 900 | 0.070 |
| 850 | 0.073 |
| 800 | 0.078 |
| 750 | 0.084 |
| 700 | 0.091 |
| 650 | 0.099 |
| 600 | 0.112 |
| 550 | 0.134 |
| 500 | 0.175 |
| 450 | 0.264 |
| 400 | 0.462 |
| 350 | 0.908 |
| 300 | 1.216 |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 1176.2 |
| 900 | 1165.1 |
| 850 | 985.8 |
| 800 | 822.7 |
| 750 | 671.4 |
| 700 | 583.4 |
| 650 | 495.5 |
| 600 | 386.3 |
| 550 | 236.8 |
| 500 | 173.1 |
| 450 | 113.9 |
| 400 | 79.7 |
| 350 | 124.6 |
| 300 | 479.1 |

| | |
|---|---|
| LONG | -69.33 |
| LAT | -61.01 |
| QUAL | 21 |

PASS 4776 AT SOLANT, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 61726 | 61801 | 61819 | 61947 | 62022 | 62057 | 62132 | 62207 |
| 1000 | 0.108 | 0.109 | 0.110 | 0.121 | 0.119 | 0.119 | 0.116 | 0.112 |
| 950 | 0.113 | 0.113 | 0.115 | 0.125 | 0.122 | 0.125 | 0.121 | 0.118 |
| 900 | 0.116 | 0.117 | 0.119 | 0.129 | 0.124 | 0.129 | 0.125 | 0.123 |
| 850 | 0.122 | 0.123 | 0.124 | 0.135 | 0.135 | 0.136 | 0.131 | 0.129 |
| 800 | 0.128 | 0.129 | 0.130 | 0.141 | 0.136 | 0.143 | 0.136 | 0.135 |
| 750 | 0.137 | 0.137 | 0.139 | 0.150 | 0.150 | 0.151 | 0.142 | 0.143 |
| 700 | 0.147 | 0.148 | 0.151 | 0.163 | 0.165 | 0.160 | 0.152 | 0.151 |
| 650 | 0.162 | 0.165 | 0.170 | 0.181 | 0.175 | 0.173 | 0.166 | 0.162 |
| 600 | 0.187 | 0.192 | 0.197 | 0.213 | 0.199 | 0.195 | 0.189 | 0.185 |
| 550 | 0.242 | 0.243 | 0.251 | 0.277 | 0.241 | 0.237 | 0.232 | 0.224 |
| 500 | 0.344 | 0.348 | 0.365 | 0.409 | 0.355 | 0.345 | 0.315 | 0.320 |
| 450 | 0.605 | 0.594 | 0.592 | 0.703 | 0.607 | 0.593 | 0.523 | 0.493 |
| 400 | 0.975 | 0.960 | 1.000 | 1.068 | 0.963 | 0.961 | 0.870 | 0.818 |
| 350 | 1.459 | 1.444 | 1.444 | | | 1.308 | 1.266 | 1.163 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 1507.0 | 1525.9 | 1397.9 | 1932.7 | 3705.7 | 1415.4 | 1602.8 | 1101.4 |
| 900 | 1516.9 | 1254.0 | 1383.5 | 1419.3 | 1337.3 | 1233.8 | 1308.1 | 1107.8 |
| 850 | 881.1 | 1014.5 | 1135.7 | 1189.1 | 1088.3 | 1034.0 | 1320.3 | 1133.4 |
| 800 | 865.6 | 900.7 | 910.2 | 964.5 | 1086.9 | 984.9 | 1261.9 | 1014.8 |
| 750 | 726.1 | 737.7 | 695.9 | 737.1 | 686.4 | 893.9 | 922.3 | 907.9 |
| 700 | 603.6 | 563.2 | 515.5 | 546.0 | 570.2 | 760.6 | 645.2 | 795.0 |
| 650 | 457.2 | 413.6 | 388.0 | 422.7 | 570.3 | 540.6 | 457.2 | 546.9 |
| 600 | 248.4 | 283.2 | 280.7 | 243.8 | 330.4 | 345.5 | 346.7 | 316.4 |
| 550 | 171.4 | 183.0 | 174.9 | 160.7 | 203.6 | 194.6 | 192.7 | 207.3 |
| 500 | 122.6 | 118.2 | 118.0 | 113.7 | 104.3 | 110.9 | 139.5 | 124.5 |
| 450 | 88.0 | 96.4 | 95.0 | 91.2 | 98.2 | 86.3 | 90.7 | 103.1 |
| 400 | 113.5 | 110.7 | 113.8 | 152.6 | 132.4 | 130.8 | 116.9 | 115.8 |
| 350 | 153.8 | 234.1 | 257.0 | | | 419.8 | 219.5 | 211.6 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -78.37 | -78.03 | -77.83 | -76.80 | -76.33 | -75.83 | -75.26 | -74.65 |
| LAT | -34.39 | -36.35 | -37.35 | -42.24 | -44.17 | -46.10 | -48.02 | -49.94 |
| QUAL | 70 | 70 | 70 | 70 | 70 | 70 | 70 | 70 |

PASS 4776 AT SOLANT, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 62255 | 62330 | 62422 | 62608 | 62643 | 62903 | 62938 |
| 1000 | 0.118 | 0.128 | 0.082 | 0.055 | 0.048 | 0.030 | 0.036 |
| 950 | 0.123 | 0.133 | 0.087 | 0.057 | 0.050 | 0.036 | 0.042 |
| 900 | 0.129 | 0.139 | 0.092 | 0.060 | 0.052 | 0.042 | 0.050 |
| 850 | 0.136 | 0.145 | 0.098 | 0.066 | 0.055 | 0.049 | 0.058 |
| 800 | 0.144 | 0.153 | 0.105 | 0.072 | 0.060 | 0.056 | 0.066 |
| 750 | 0.153 | 0.163 | 0.116 | 0.079 | 0.065 | 0.065 | 0.076 |
| 700 | 0.164 | 0.177 | 0.127 | 0.087 | 0.071 | 0.076 | 0.087 |
| 650 | 0.180 | 0.201 | 0.140 | 0.097 | 0.080 | 0.087 | 0.101 |
| 600 | 0.206 | 0.237 | 0.161 | 0.114 | 0.094 | 0.104 | 0.120 |
| 550 | 0.256 | 0.307 | 0.200 | 0.144 | 0.119 | 0.127 | 0.146 |
| 500 | 0.351 | 0.444 | 0.287 | 0.192 | 0.163 | 0.156 | 0.185 |
| 450 | 0.570 | 0.704 | 0.465 | 0.289 | 0.256 | 0.199 | 0.239 |
| 400 | 0.907 | 1.085 | 0.813 | 0.489 | 0.422 | 0.255 | 0.315 |
| 350 | 1.282 | 1.437 | 1.258 | 0.786 | 0.671 | 0.333 | 0.412 |
| 300 | | | | 1.047 | 0.884 | 0.429 | 0.537 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 1120.0 | 1270.5 | 815.4 | 917.2 | 1435.6 | 304.7 | 314.1 |
| 900 | 1002.5 | 1162.1 | 822.2 | 761.6 | 1068.0 | 332.8 | 329.6 |
| 850 | 945.6 | 1004.0 | 738.3 | 600.8 | 815.1 | 336.8 | 344.3 |
| 800 | 883.4 | 837.4 | 652.6 | 612.5 | 660.7 | 337.2 | 356.5 |
| 750 | 766.0 | 710.4 | 556.0 | 555.2 | 583.3 | 328.2 | 346.0 |
| 700 | 633.2 | 508.9 | 507.3 | 481.7 | 503.7 | 319.2 | 335.6 |
| 650 | 453.1 | 358.9 | 436.7 | 380.3 | 363.8 | 310.2 | 312.4 |
| 600 | 300.5 | 251.2 | 300.9 | 258.7 | 262.4 | 288.1 | 276.0 |
| 550 | 195.6 | 165.7 | 190.8 | 193.7 | 182.7 | 257.6 | 242.1 |
| 500 | 130.6 | 120.9 | 117.0 | 150.5 | 135.4 | 229.6 | 215.2 |
| 450 | 102.3 | 107.7 | 95.0 | 111.1 | 106.7 | 210.4 | 195.9 |
| 400 | 125.5 | 134.5 | 98.3 | 97.0 | 103.3 | 198.8 | 192.1 |
| 350 | 188.7 | 606.9 | 132.7 | 128.4 | 121.2 | 202.7 | 192.2 |
| 300 | | | | 693.7 | 516.8 | 206.4 | 199.8 |
| LONG | -73.71 | -72.91 | -71.58 | -67.96 | -66.45 | -57.34 | -53.65 |
| LAT | -52.56 | -54.45 | -57.26 | -62.91 | -64.73 | -71.76 | -73.39 |
| QUAL | 70 | 70 | 70 | 70 | 70 | 33 | 33 |

PASS 4776 AT SOLANT, 63 914

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 63031 | 63106 | 63139 |
| 1000 | 0.054 | 0.067 | 0.072 |
| 950 | 0.062 | 0.077 | 0.085 |
| 900 | 0.071 | 0.090 | 0.098 |
| 850 | 0.081 | 0.107 | 0.114 |
| 800 | 0.093 | 0.125 | 0.132 |
| 750 | 0.107 | 0.144 | 0.151 |
| 700 | 0.123 | 0.166 | 0.173 |
| 650 | 0.143 | 0.191 | 0.198 |
| 600 | 0.166 | 0.220 | 0.231 |
| 550 | 0.192 | 0.258 | 0.270 |
| 500 | 0.224 | 0.303 | 0.323 |
| 450 | 0.279 | 0.357 | 0.388 |
| 400 | 0.346 | 0.439 | 0.474 |
| 350 | 0.433 | 0.538 | 0.591 |
| 300 | 0.540 | 0.663 | 0.736 |
| HEIGHT | SCALE HEIGHT, KM | | |
| 950 | 361.2 | 322.0 | 322.6 |
| 900 | 357.0 | 318.5 | 334.5 |
| 850 | 355.5 | 319.8 | 346.7 |
| 800 | 354.4 | 331.8 | 354.6 |
| 750 | 353.3 | 345.7 | 357.7 |
| 700 | 351.8 | 347.5 | 354.0 |
| 650 | 337.2 | 339.2 | 348.3 |
| 600 | 322.7 | 329.4 | 322.2 |
| 550 | 308.2 | 315.0 | 296.6 |
| 500 | 291.8 | 300.5 | 280.7 |
| 450 | 265.1 | 285.0 | 264.9 |
| 400 | 238.4 | 261.5 | 250.8 |
| 350 | 240.0 | 242.9 | 239.2 |
| 300 | 251.1 | 236.2 | 228.4 |
| LONG | -46.72 | -41.14 | -34.16 |
| LAT | -75.70 | -77.11 | -78.24 |
| QUAL | 33 | 33 | 33 |

PASS 4803 AT RESLUT, 63 916

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 50912 | 50930 | 50947 | 51005 | 51022 | 51040 | 51057 | 51115 |
| 1000 | 0.164 | 0.183 | 0.196 | 0.178 | 0.181 | 0.132 | 0.084 | 0.079 |
| 950 | 0.180 | 0.199 | 0.211 | 0.193 | 0.199 | 0.146 | 0.097 | 0.090 |
| 900 | 0.203 | 0.216 | 0.229 | 0.210 | 0.220 | 0.162 | 0.111 | 0.102 |
| 850 | 0.230 | 0.242 | 0.252 | 0.238 | 0.248 | 0.180 | 0.127 | 0.118 |
| 800 | 0.265 | 0.279 | 0.281 | 0.277 | 0.286 | 0.208 | 0.148 | 0.138 |
| 750 | 0.312 | 0.327 | 0.329 | 0.324 | 0.334 | 0.247 | 0.174 | 0.168 |
| 700 | 0.370 | 0.386 | 0.395 | 0.380 | 0.391 | 0.295 | 0.206 | 0.205 |
| 650 | 0.443 | 0.463 | 0.473 | 0.456 | 0.469 | 0.353 | 0.253 | 0.252 |
| 600 | 0.537 | 0.558 | 0.563 | 0.566 | 0.562 | 0.430 | 0.311 | 0.310 |
| 550 | 0.648 | 0.673 | 0.666 | 0.703 | 0.669 | 0.536 | 0.381 | 0.379 |
| 500 | 0.794 | 0.845 | 0.828 | 0.880 | 0.825 | 0.661 | 0.490 | 0.490 |
| 450 | 0.989 | 1.069 | 1.041 | 1.108 | 1.055 | 0.838 | 0.623 | 0.633 |
| 400 | 1.262 | 1.364 | 1.320 | 1.416 | 1.362 | 1.077 | 0.815 | 0.830 |
| 350 | 1.607 | 1.773 | 1.670 | 1.796 | 1.762 | 1.406 | 1.081 | 1.091 |
| 300 | 2.040 | 2.332 | 2.084 | 2.212 | 2.247 | 1.804 | 1.429 | 1.430 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 474.2 | 585.8 | 624.7 | 613.2 | 500.3 | 489.3 | 357.4 | 374.9 |
| 900 | 404.6 | 476.8 | 549.5 | 459.0 | 436.6 | 440.4 | 349.3 | 352.2 |
| 850 | 363.6 | 412.1 | 475.0 | 402.7 | 378.7 | 381.5 | 337.6 | 325.1 |
| 800 | 336.9 | 381.0 | 400.5 | 346.3 | 355.2 | 352.9 | 320.1 | 299.8 |
| 750 | 317.8 | 350.0 | 340.3 | 315.1 | 331.7 | 330.6 | 296.0 | 278.2 |
| 700 | 298.6 | 318.9 | 282.2 | 289.0 | 308.5 | 308.4 | 272.0 | 256.6 |
| 650 | 282.9 | 294.1 | 275.7 | 267.4 | 294.1 | 286.1 | 257.7 | 243.6 |
| 600 | 271.8 | 271.2 | 271.2 | 252.0 | 279.7 | 266.0 | 243.4 | 234.3 |
| 550 | 260.8 | 248.4 | 266.8 | 236.6 | 265.3 | 248.2 | 229.1 | 225.0 |
| 500 | 241.9 | 226.3 | 238.1 | 222.1 | 234.8 | 230.4 | 216.0 | 210.3 |
| 450 | 217.5 | 210.8 | 216.5 | 213.6 | 199.6 | 211.3 | 202.8 | 195.1 |
| 400 | 212.8 | 203.2 | 216.4 | 212.1 | 198.8 | 196.5 | 187.0 | 187.1 |
| 350 | 210.3 | 186.1 | 221.4 | 225.3 | 199.0 | 196.0 | 181.3 | 187.3 |
| 300 | 211.2 | 198.9 | 239.6 | 255.1 | 242.2 | 214.8 | 192.8 | 196.7 |
| LONG | -173.16 | -170.45 | -167.89 | -164.27 | -158.61 | -152.61 | -146.95 | -141.77 |
| LAT | 79.84 | 80.08 | 80.31 | 80.46 | 80.36 | 80.25 | 80.15 | 79.77 |
| QUAL | 31 | 23 | 23 | 23 | 21 | 31 | 31 | 31 |

PASS 4803 AT RESLUT, 63 916

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 51133 | 51150 | 51208 | 51225 | 51243 | 51300 | 51318 | 51335 |
| 1000 | 0.071 | 0.078 | 0.081 | 0.111 | 0.124 | 0.116 | 0.091 | 0.109 |
| 950 | 0.082 | 0.091 | 0.095 | 0.128 | 0.141 | 0.130 | 0.103 | 0.123 |
| 900 | 0.093 | 0.103 | 0.109 | 0.148 | 0.162 | 0.149 | 0.119 | 0.140 |
| 850 | 0.108 | 0.118 | 0.124 | 0.171 | 0.185 | 0.168 | 0.138 | 0.158 |
| 800 | 0.128 | 0.138 | 0.145 | 0.199 | 0.213 | 0.194 | 0.160 | 0.182 |
| 750 | 0.155 | 0.165 | 0.170 | 0.239 | 0.250 | 0.227 | 0.196 | 0.211 |
| 700 | 0.188 | 0.197 | 0.201 | 0.288 | 0.295 | 0.267 | 0.242 | 0.245 |
| 650 | 0.231 | 0.244 | 0.246 | 0.347 | 0.347 | 0.314 | 0.297 | 0.291 |
| 600 | 0.285 | 0.306 | 0.315 | 0.422 | 0.414 | 0.368 | 0.363 | 0.369 |
| 550 | 0.349 | 0.380 | 0.398 | 0.527 | 0.505 | 0.466 | 0.456 | 0.465 |
| 500 | 0.444 | 0.489 | 0.507 | 0.651 | 0.613 | 0.596 | 0.566 | 0.581 |
| 450 | 0.580 | 0.625 | 0.637 | 0.824 | 0.756 | 0.761 | 0.698 | 0.723 |
| 400 | 0.762 | 0.816 | 0.816 | 1.044 | 0.940 | 0.978 | 0.876 | 0.903 |
| 350 | 1.014 | 1.067 | 1.059 | 1.332 | 1.153 | 1.282 | 1.063 | 1.132 |
| 300 | 1.339 | 1.366 | | 1.654 | | 1.560 | 1.206 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 364.9 | 359.4 | 348.1 | 340.1 | 376.2 | 416.8 | 377.4 | 407.6 |
| 900 | 344.0 | 355.7 | 356.7 | 338.9 | 361.2 | 383.6 | 336.4 | 391.3 |
| 850 | 316.6 | 328.6 | 333.2 | 316.1 | 343.6 | 351.8 | 310.3 | 361.4 |
| 800 | 294.5 | 306.9 | 314.6 | 296.4 | 327.8 | 333.6 | 285.8 | 343.5 |
| 750 | 276.1 | 286.4 | 296.1 | 287.0 | 317.6 | 320.3 | 276.2 | 325.7 |
| 700 | 257.6 | 265.9 | 277.5 | 277.7 | 307.4 | 307.1 | 266.5 | 307.8 |
| 650 | 245.7 | 249.2 | 256.7 | 268.4 | 297.2 | 293.9 | 256.8 | 282.4 |
| 600 | 236.4 | 234.3 | 233.6 | 257.2 | 284.9 | 280.7 | 247.4 | 233.2 |
| 550 | 227.1 | 219.5 | 212.3 | 242.4 | 269.7 | 253.5 | 243.0 | 219.2 |
| 500 | 213.3 | 209.6 | 212.1 | 227.6 | 254.4 | 222.6 | 238.5 | 225.5 |
| 450 | 196.1 | 200.4 | 211.9 | 217.4 | 245.5 | 202.4 | 237.3 | 227.7 |
| 400 | 182.7 | 192.3 | 201.2 | 213.5 | 241.7 | 194.5 | 250.3 | 223.9 |
| 350 | 180.3 | 199.1 | 190.4 | 220.5 | 276.7 | 210.1 | 308.9 | 221.9 |
| 300 | 195.9 | 226.2 | | 242.4 | | 400.1 | 698.1 | |
| LONG | -136.76 | -132.02 | -127.62 | -124.16 | -120.51 | -117.06 | -114.49 | -112.07 |
| LAT | 79.35 | 78.95 | 78.42 | 77.81 | 77.17 | 76.56 | 75.79 | 75.05 |
| QUAL | 31 | 31 | 31 | 31 | 31 | 31 | 31 | 33 |

PASS 4803 AT RESLUT, 63 916

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 51353 | 51411 | 51428 | 51446 | 51503 | 51521 | 51538 | 51556 |
| 1000 | 0.137 | 0.131 | 0.148 | 0.155 | 0.131 | 0.083 | 0.071 | 0.062 |
| 950 | 0.158 | 0.150 | 0.169 | 0.176 | 0.149 | 0.099 | 0.082 | 0.073 |
| 900 | 0.181 | 0.172 | 0.194 | 0.202 | 0.170 | 0.118 | 0.090 | 0.083 |
| 850 | 0.208 | 0.199 | 0.228 | 0.236 | 0.195 | 0.139 | 0.100 | 0.096 |
| 800 | 0.242 | 0.246 | 0.270 | 0.278 | 0.236 | 0.163 | 0.114 | 0.113 |
| 750 | 0.286 | 0.311 | 0.324 | 0.328 | 0.293 | 0.198 | 0.130 | 0.134 |
| 700 | 0.338 | 0.396 | 0.411 | 0.385 | 0.367 | 0.241 | 0.163 | 0.160 |
| 650 | 0.400 | 0.504 | 0.520 | 0.483 | 0.465 | 0.293 | 0.205 | 0.197 |
| 600 | 0.499 | 0.633 | 0.653 | 0.611 | 0.589 | 0.353 | 0.259 | 0.243 |
| 550 | 0.626 | 0.811 | 0.817 | 0.768 | 0.743 | 0.459 | 0.324 | 0.296 |
| 500 | 0.787 | 1.039 | 1.029 | 0.956 | 0.953 | 0.610 | 0.406 | 0.367 |
| 450 | 0.996 | 1.311 | 1.288 | 1.191 | 1.212 | 0.798 | 0.517 | 0.472 |
| 400 | 1.262 | 1.639 | 1.600 | 1.464 | | 1.035 | 0.637 | 0.592 |
| 350 | 1.555 | 2.023 | 1.932 | | | | 0.742 | 0.686 |
| 300 | 1.759 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 354.9 | 371.3 | 365.7 | 373.2 | 385.8 | 288.4 | 482.5 | 351.5 |
| 900 | 361.8 | 345.4 | 323.2 | 323.6 | 356.5 | 295.0 | 452.2 | 341.9 |
| 850 | 328.2 | 272.1 | 302.3 | 312.4 | 298.2 | 284.0 | 406.7 | 322.0 |
| 800 | 311.6 | 254.1 | 281.4 | 301.2 | 271.6 | 272.1 | 361.1 | 302.8 |
| 750 | 299.5 | 238.1 | 259.5 | 290.1 | 253.8 | 263.5 | 316.3 | 283.7 |
| 700 | 287.4 | 222.0 | 232.5 | 278.9 | 236.0 | 254.9 | 278.8 | 265.2 |
| 650 | 275.4 | 217.7 | 217.8 | 254.4 | 225.1 | 246.3 | 241.3 | 257.2 |
| 600 | 255.4 | 213.3 | 221.7 | 226.4 | 218.5 | 237.6 | 223.4 | 249.1 |
| 550 | 233.8 | 207.1 | 221.6 | 223.5 | 211.8 | 219.0 | 221.1 | 241.0 |
| 500 | 219.1 | 209.0 | 219.8 | 228.8 | 204.6 | 195.4 | 223.4 | 238.5 |
| 450 | 212.7 | 220.5 | 228.3 | 241.7 | 212.6 | 189.4 | 236.1 | 245.9 |
| 400 | 231.7 | 232.6 | 255.2 | 256.6 | | 190.7 | 284.7 | 278.1 |
| 350 | 296.9 | 244.3 | 311.9 | | | | 414.9 | 615.9 |
| 300 | 807.7 | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -109.51 | -107.40 | -105.69 | -103.87 | -102.24 | -100.91 | -99.66 | -98.33 |
| LAT | 74.28 | 73.46 | 72.65 | 71.80 | 70.99 | 70.09 | 69.23 | 68.33 |
| QUAL | 31 | 33 | 33 | 33 | 33 | 33 | 31 | 31 |

PASS 4803 AT RESLUT, 63 916

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 51613 | 51631 | 51648 | 51706 | 51724 |
| 1000 | 0.092 | 0.085 | 0.161 | 0.110 | 0.156 |
| 950 | 0.108 | 0.103 | 0.177 | 0.123 | 0.165 |
| 900 | 0.132 | 0.120 | 0.196 | 0.134 | 0.176 |
| 850 | 0.159 | 0.138 | 0.217 | 0.144 | 0.190 |
| 800 | 0.190 | 0.158 | 0.242 | 0.156 | 0.205 |
| 750 | 0.228 | 0.186 | 0.272 | 0.172 | 0.222 |
| 700 | 0.271 | 0.221 | 0.305 | 0.191 | 0.245 |
| 650 | 0.329 | 0.266 | 0.342 | 0.215 | 0.277 |
| 600 | 0.399 | 0.326 | 0.388 | 0.243 | 0.321 |
| 550 | 0.490 | 0.409 | 0.450 | 0.277 | 0.376 |
| 500 | 0.600 | 0.524 | 0.546 | 0.316 | 0.458 |
| 450 | 0.750 | 0.670 | 0.679 | 0.362 | 0.559 |
| 400 | 0.933 | 0.848 | 0.844 | 0.453 | 0.683 |
| 350 | 1.140 | | 1.037 | 0.554 | 0.826 |
| 300 | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | |
|---|---|---|---|---|---|
| 950 | 290.3 | 305.2 | 507.7 | | 869.5 |
| 900 | 269.4 | 344.9 | 483.2 | 632.1 | 751.6 |
| 850 | 272.8 | 349.9 | 463.7 | 593.0 | 662.9 |
| 800 | 274.7 | 326.8 | 453.4 | 553.9 | 611.4 |
| 750 | 274.7 | 305.4 | 447.6 | 512.3 | 547.2 |
| 700 | 274.6 | 284.0 | 438.0 | 470.2 | 452.0 |
| 650 | 263.7 | 262.1 | 406.5 | 428.1 | 387.0 |
| 600 | 250.7 | 234.8 | 363.4 | 398.6 | 341.3 |
| 550 | 243.7 | 211.3 | 309.4 | 372.4 | 297.7 |
| 500 | 236.8 | 212.4 | 248.5 | 346.1 | 281.5 |
| 450 | 239.3 | 221.1 | 230.8 | 316.9 | 265.4 |
| 400 | 242.6 | 277.9 | 231.5 | 239.5 | 267.8 |
| 350 | 325.6 | | 323.5 | 263.6 | 323.8 |
| 300 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LONG | -97.32 | -96.32 | -95.38 | -94.45 | -93.68 |
| LAT | 67.46 | 66.53 | 65.65 | 64.71 | 63.76 |
| QUAL | 31 | 31 | 31 | 33 | 21 |

PASS 4803 AT OTTAWA, 63 916

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 51910 | 51945 | 52118 | 52229 |
| 1000 | 0.030 | 0.048 | 0.030 | 0.010 |
| 950 | 0.038 | 0.055 | 0.038 | 0.015 |
| 900 | 0.045 | 0.063 | 0.045 | 0.018 |
| 850 | 0.053 | 0.072 | 0.053 | 0.022 |
| 800 | 0.062 | 0.085 | 0.063 | 0.027 |
| 750 | 0.075 | 0.100 | 0.076 | 0.034 |
| 700 | 0.093 | 0.122 | 0.094 | 0.044 |
| 650 | 0.114 | 0.153 | 0.121 | 0.060 |
| 600 | 0.147 | 0.192 | 0.154 | 0.081 |
| 550 | 0.191 | 0.261 | 0.195 | 0.114 |
| 500 | 0.256 | 0.358 | 0.271 | 0.163 |
| 450 | 0.367 | 0.482 | 0.366 | 0.242 |
| 400 | 0.513 | 0.628 | 0.492 | 0.364 |
| 350 | 0.633 | 0.772 | 0.645 | 0.563 |
| 300 | | | 0.830 | 0.808 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 257.9 | 415.0 | 321.7 | 280.5 |
| 900 | 289.9 | 374.0 | 290.9 | 237.5 |
| 850 | 285.0 | 336.9 | 277.6 | 241.4 |
| 800 | 274.4 | 301.5 | 265.2 | 224.6 |
| 750 | 259.5 | 266.1 | 252.7 | 208.0 |
| 700 | 242.9 | 243.4 | 238.6 | 191.7 |
| 650 | 226.3 | 224.0 | 223.1 | 177.1 |
| 600 | 206.8 | 204.5 | 207.5 | 162.5 |
| 550 | 186.1 | 181.0 | 192.3 | 149.8 |
| 500 | 163.4 | 166.4 | 180.6 | 138.1 |
| 450 | 149.3 | 183.6 | 169.3 | 128.5 |
| 400 | 194.2 | 220.9 | 181.5 | 120.5 |
| 350 | 312.1 | 389.2 | 193.7 | 134.5 |
| 300 | | | 203.8 | 159.2 |
| LONG | -89.81 | -88.84 | -86.73 | -85.46 |
| LAT | 58.08 | 56.18 | 52.47 | 47.14 |
| QUAL | 31 | 31 | 33 | 33 |

PASS 4803 AT QUITOE, 63 916

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 53347 | 53422 | 53457 | 53532 | 53607 | 53625 | 53700 | 53735 |
| 1000 | 0.111 | 0.119 | 0.121 | 0.124 | 0.122 | 0.128 | 0.127 | 0.135 |
| 950 | 0.124 | 0.130 | 0.131 | 0.136 | 0.133 | 0.140 | 0.139 | 0.147 |
| 900 | 0.128 | 0.136 | 0.137 | 0.142 | 0.138 | 0.148 | 0.146 | 0.155 |
| 850 | 0.133 | 0.141 | 0.143 | 0.149 | 0.143 | 0.154 | 0.153 | 0.165 |
| 800 | 0.138 | 0.148 | 0.150 | 0.157 | 0.150 | 0.161 | 0.163 | 0.180 |
| 750 | 0.145 | 0.158 | 0.163 | 0.165 | 0.161 | 0.172 | 0.176 | 0.217 |
| 700 | 0.157 | 0.179 | 0.184 | 0.188 | 0.173 | 0.189 | 0.200 | 0.264 |
| 650 | 0.176 | 0.208 | 0.214 | 0.218 | 0.192 | 0.221 | 0.251 | 0.373 |
| 600 | 0.211 | 0.256 | 0.268 | 0.263 | 0.234 | 0.286 | 0.357 | 0.569 |
| 550 | 0.308 | 0.359 | 0.361 | 0.356 | 0.336 | 0.402 | 0.591 | 0.774 |
| 500 | 0.475 | 0.562 | 0.564 | 0.572 | 0.573 | 0.696 | 0.935 | 1.217 |
| 450 | 0.776 | 0.875 | 0.890 | 0.884 | 1.069 | 1.351 | 1.601 | 1.873 |
| 400 | 1.243 | 1.330 | 1.340 | 1.505 | 2.030 | 2.452 | 2.560 | 2.775 |
| 350 | | | | | | | 3.778 | 3.932 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | | | | 1230.1 | | | | 812.3 |
| 900 | 1541.3 | 1142.6 | 1134.0 | 1086.4 | 1429.0 | 1120.3 | 1128.7 | 758.1 |
| 850 | 1294.3 | 1020.2 | 979.9 | 941.9 | 1208.9 | 1126.4 | 880.6 | 635.1 |
| 800 | 1116.7 | 959.2 | 799.5 | 821.9 | 950.3 | 888.2 | 727.9 | 498.4 |
| 750 | 886.3 | 685.2 | 628.7 | 694.4 | 711.5 | 685.7 | 575.2 | 302.4 |
| 700 | 546.7 | 491.5 | 461.1 | 527.6 | 587.4 | 480.9 | 349.2 | 211.6 |
| 650 | 379.6 | 309.4 | 310.0 | 360.7 | 378.0 | 275.3 | 191.1 | 154.1 |
| 600 | 213.8 | 217.3 | 228.3 | 237.8 | 200.9 | 169.5 | 132.8 | 131.2 |
| 550 | 120.1 | 143.1 | 156.0 | 156.3 | 117.0 | 125.3 | 105.5 | 135.7 |
| 500 | 110.9 | 114.8 | 112.9 | 113.1 | 90.5 | 82.3 | 101.2 | 113.4 |
| 450 | 103.6 | 118.0 | 116.9 | 104.1 | 78.4 | 75.5 | 101.0 | 123.3 |
| 400 | 123.7 | 129.2 | 143.2 | 110.5 | 79.4 | 95.1 | 117.5 | 133.2 |
| 350 | | | | | | | 137.2 | 150.9 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -79.42 | -79.31 | -79.24 | -78.95 | -78.67 | -78.58 | -78.39 | -78.21 |
| LAT | 9.01 | 7.02 | 5.04 | 3.06 | 1.08 | 0.07 | -1.91 | -3.89 |
| QUAL | 23 | 33 | 33 | 33 | 33 | 33 | 33 | 23 |

PASS 4803 AT QUITOE, 63 916

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 53810 | 53845 |
| 1000 | 0.132 | 0.144 |
| 950 | 0.145 | 0.160 |
| 900 | 0.159 | 0.179 |
| 850 | 0.177 | 0.202 |
| 800 | 0.207 | 0.243 |
| 750 | 0.269 | 0.309 |
| 700 | 0.353 | 0.399 |
| 650 | 0.465 | 0.518 |
| 600 | 0.611 | 0.678 |
| 550 | 0.840 | 0.901 |
| 500 | 1.210 | 1.267 |
| 450 | 1.769 | 1.787 |
| 400 | 2.556 | 2.538 |
| 350 | 3.690 | 3.625 |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 529.5 | 452.3 |
| 900 | 462.0 | 401.2 |
| 850 | 386.9 | 334.1 |
| 800 | 315.3 | 279.7 |
| 750 | 249.6 | 233.2 |
| 700 | 190.6 | 201.7 |
| 650 | 182.2 | 192.2 |
| 600 | 171.6 | 180.5 |
| 550 | 151.9 | 166.1 |
| 500 | 134.8 | 144.2 |
| 450 | 135.9 | 147.9 |
| 400 | 132.8 | 141.1 |
| 350 | 158.5 | 145.6 |
| 300 | | |

| | | |
|---|---|---|
| LONG | -78.02 | -77.83 |
| LAT | -5.86 | -7.84 |
| QUAL | 23 | 23 |

PASS 4803 AT AGASTA, 63 916

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 54440 | 54515 | 54590 | 54625 | 54700 | 54736 | 54811 |
| 1000 | 0.127 | 0.112 | 0.125 | 0.111 | 0.111 | 0.111 | 0.114 |
| 950 | 0.135 | 0.119 | 0.132 | 0.116 | 0.117 | 0.118 | 0.120 |
| 900 | 0.142 | 0.127 | 0.139 | 0.123 | 0.121 | 0.124 | 0.125 |
| 850 | 0.151 | 0.138 | 0.148 | 0.131 | 0.127 | 0.132 | 0.130 |
| 800 | 0.163 | 0.152 | 0.160 | 0.141 | 0.133 | 0.140 | 0.140 |
| 750 | 0.179 | 0.170 | 0.175 | 0.156 | 0.145 | 0.149 | 0.153 |
| 700 | 0.205 | 0.192 | 0.196 | 0.178 | 0.169 | 0.164 | 0.166 |
| 650 | 0.256 | 0.228 | 0.259 | 0.219 | 0.198 | 0.196 | 0.191 |
| 600 | 0.336 | 0.304 | 0.348 | 0.300 | 0.275 | 0.255 | 0.244 |
| 550 | 0.518 | 0.424 | 0.525 | 0.468 | 0.408 | 0.405 | 0.369 |
| 500 | 0.891 | 0.643 | 0.821 | 0.749 | 0.670 | 0.662 | 0.589 |
| 450 | 1.613 | 1.176 | 1.260 | 1.211 | 1.129 | 1.053 | 0.985 |
| 400 | 2.898 | 2.015 | 1.909 | 1.865 | 1.695 | 1.613 | 1.528 |
| 350 | 4.746 | 3.234 | 2.666 | | | | |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 894.0 | 814.1 | 904.8 | 979.5 | 1191.0 | 913.8 | 1160.8 |
| 900 | 846.8 | 665.8 | 859.3 | 868.5 | 1170.7 | 874.4 | 1227.9 |
| 850 | 725.6 | 578.3 | 663.5 | 731.8 | 1003.6 | 866.6 | 972.5 |
| 800 | 588.5 | 490.9 | 569.8 | 571.1 | 836.5 | 792.7 | 732.5 |
| 750 | 468.2 | 423.3 | 476.0 | 454.6 | 599.8 | 634.6 | 567.5 |
| 700 | 304.3 | 355.8 | 369.5 | 330.3 | 307.3 | 431.2 | 482.2 |
| 650 | 210.2 | 272.9 | 169.7 | 205.3 | 240.1 | 233.6 | 289.1 |
| 600 | 158.7 | 162.0 | 148.8 | 141.2 | 135.6 | 161.9 | 157.4 |
| 550 | 111.8 | 138.1 | 122.7 | 117.2 | 123.6 | 122.1 | 116.5 |
| 500 | 88.7 | 108.9 | 116.1 | 106.9 | 87.9 | 107.1 | 107.2 |
| 450 | 85.4 | 90.4 | 117.2 | 107.2 | 111.4 | 110.3 | 105.0 |
| 400 | 91.3 | 97.9 | 132.6 | 148.3 | 133.9 | 132.8 | 137.8 |
| 350 | 118.3 | 129.6 | 181.1 | | | | |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -75.57 | -75.29 | -74.99 | -74.67 | -74.34 | -73.96 | -73.55 |
| LAT | -27.86 | -29.82 | -31.78 | -33.74 | -35.69 | -37.69 | -39.63 |
| QUAL | 23 | 23 | 23 | 21 | 23 | 23 | 23 |

PASS 4803 AT AGASTA, 63 916

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 54921 | 54956 | 55031 | 55106 |
| 1000 | 0.111 | 0.100 | 0.100 | 0.100 |
| 950 | 0.117 | 0.107 | 0.106 | 0.106 |
| 900 | 0.123 | 0.114 | 0.111 | 0.112 |
| 850 | 0.130 | 0.122 | 0.118 | 0.119 |
| 800 | 0.138 | 0.133 | 0.127 | 0.129 |
| 750 | 0.149 | 0.146 | 0.141 | 0.144 |
| 700 | 0.163 | 0.166 | 0.162 | 0.162 |
| 650 | 0.191 | 0.203 | 0.201 | 0.198 |
| 600 | 0.236 | 0.263 | 0.274 | 0.270 |
| 550 | 0.308 | 0.378 | 0.391 | 0.404 |
| 500 | 0.494 | 0.640 | 0.610 | 0.638 |
| 450 | 0.812 | 1.045 | 1.005 | 1.022 |
| 400 | 1.262 | 1.511 | 1.512 | 1.529 |
| 350 | | | | |
| 300 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | |
|---|---|---|---|---|
| 950 | 1020.6 | 792.3 | 926.8 | 878.8 |
| 900 | 941.2 | 725.8 | 886.5 | 797.7 |
| 850 | 855.8 | 638.6 | 743.2 | 710.5 |
| 800 | 718.6 | 557.9 | 593.2 | 586.3 |
| 750 | 584.3 | 461.2 | 457.7 | 446.4 |
| 700 | 451.7 | 326.6 | 320.4 | 343.9 |
| 650 | 301.7 | 219.6 | 195.9 | 195.1 |
| 600 | 214.7 | 172.1 | 164.7 | 150.9 |
| 550 | 156.2 | 115.6 | 134.5 | 123.7 |
| 500 | 111.8 | 97.3 | 107.9 | 110.3 |
| 450 | 105.2 | 120.1 | 113.7 | 115.9 |
| 400 | 144.0 | 155.0 | 152.3 | 148.8 |
| 350 | | | | |
| 300 | | | | |

| | | | | |
|---|---|---|---|---|
| LONG | -72.61 | -72.19 | -71.64 | -71.06 |
| LAT | -43.51 | -45.44 | -47.36 | -49.29 |
| QUAL | 23 | 23 | 23 | 23 |

PASS 4803 AT SOLANT, 63 916

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 54846 | 54921 | 55014 | 55049 | 55124 | 55210 | 55245 | 55320 |
| 1000 | 0.131 | 0.123 | 0.115 | 0.125 | 0.115 | 0.112 | 0.119 | 0.083 |
| 950 | 0.138 | 0.131 | 0.122 | 0.133 | 0.122 | 0.119 | 0.126 | 0.088 |
| 900 | 0.143 | 0.140 | 0.130 | 0.139 | 0.127 | 0.127 | 0.133 | 0.095 |
| 850 | 0.150 | 0.149 | 0.138 | 0.147 | 0.134 | 0.136 | 0.141 | 0.108 |
| 800 | 0.158 | 0.159 | 0.149 | 0.158 | 0.144 | 0.149 | 0.150 | 0.128 |
| 750 | 0.170 | 0.172 | 0.166 | 0.178 | 0.165 | 0.167 | 0.186 | 0.151 |
| 700 | 0.188 | 0.196 | 0.189 | 0.215 | 0.193 | 0.188 | 0.231 | 0.178 |
| 650 | 0.220 | 0.236 | 0.242 | 0.264 | 0.229 | 0.245 | 0.289 | 0.238 |
| 600 | 0.276 | 0.293 | 0.351 | 0.324 | 0.322 | 0.341 | 0.483 | 0.350 |
| 550 | 0.401 | 0.382 | 0.499 | 0.501 | 0.476 | 0.474 | 0.679 | 0.522 |
| 500 | 0.667 | 0.637 | 0.749 | 0.812 | 0.761 | 0.758 | 0.916 | 0.852 |
| 450 | 1.108 | 0.968 | 1.160 | 1.228 | 1.158 | 1.208 | 1.394 | 1.304 |
| 400 | 1.671 | 1.423 | 1.634 | 1.745 | 1.665 | 1.708 | 1.932 | 1.853 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 1121.2 | 792.9 | 807.2 | 1013.7 | 1016.1 | 793.0 | 839.5 | 674.4 |
| 900 | 1129.4 | 802.0 | 794.9 | 969.5 | 992.2 | 716.5 | 779.1 | 527.1 |
| 850 | 983.2 | 765.7 | 718.1 | 792.1 | 801.0 | 595.7 | 668.7 | 427.4 |
| 800 | 810.0 | 677.1 | 553.8 | 580.0 | 604.6 | 484.1 | 558.3 | 341.9 |
| 750 | 621.1 | 512.0 | 440.5 | 359.5 | 390.4 | 407.7 | 314.2 | 285.8 |
| 700 | 427.8 | 338.8 | 329.7 | 248.7 | 291.2 | 331.4 | 209.3 | 243.8 |
| 650 | 275.6 | 262.7 | 231.8 | 218.7 | 232.0 | 165.9 | 171.5 | 172.7 |
| 600 | 185.8 | 209.7 | 148.1 | 188.7 | 132.4 | 148.3 | 123.3 | 126.7 |
| 550 | 114.4 | 156.4 | 133.5 | 113.8 | 120.6 | 136.6 | 135.6 | 116.9 |
| 500 | 97.5 | 108.5 | 116.7 | 113.2 | 113.7 | 107.6 | 138.3 | 111.3 |
| 450 | 111.1 | 125.2 | 129.7 | 131.9 | 130.2 | 126.8 | 136.9 | 130.4 |
| 400 | 134.6 | 142.8 | 194.7 | 151.9 | 190.4 | 202.4 | 187.1 | 185.0 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -73.14 | -72.68 | -71.91 | -71.35 | -70.71 | -69.80 | -69.01 | -68.12 |
| LAT | -41.57 | -43.51 | -46.43 | -48.35 | -50.27 | -52.77 | -54.67 | -56.56 |
| QUAL | 23 | 23 | 23 | 23 | 21 | 22 | 23 | 23 |

PASS 4803 AT SOLANT, 63 916

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 55355 | 55430 | 55505 | 55523 | 55725 | 55800 | 55835 | 55910 |
| 1000 | 0.085 | 0.083 | 0.076 | 0.064 | 0.015 | 0.017 | 0.013 | 0.020 |
| 950 | 0.089 | 0.088 | 0.085 | 0.068 | 0.019 | 0.021 | 0.017 | 0.026 |
| 900 | 0.095 | 0.095 | 0.093 | 0.075 | 0.024 | 0.025 | 0.022 | 0.033 |
| 850 | 0.104 | 0.103 | 0.104 | 0.085 | 0.030 | 0.030 | 0.028 | 0.040 |
| 800 | 0.116 | 0.116 | 0.117 | 0.098 | 0.036 | 0.036 | 0.035 | 0.048 |
| 750 | 0.130 | 0.135 | 0.136 | 0.119 | 0.045 | 0.046 | 0.043 | 0.058 |
| 700 | 0.166 | 0.160 | 0.161 | 0.148 | 0.055 | 0.059 | 0.054 | 0.071 |
| 650 | 0.228 | 0.210 | 0.195 | 0.198 | 0.066 | 0.074 | 0.067 | 0.087 |
| 600 | 0.329 | 0.314 | 0.272 | 0.277 | 0.082 | 0.093 | 0.084 | 0.106 |
| 550 | 0.505 | 0.510 | 0.409 | 0.413 | 0.108 | 0.115 | 0.115 | 0.138 |
| 500 | 0.805 | 0.794 | 0.618 | 0.604 | 0.140 | 0.163 | 0.154 | 0.178 |
| 450 | 1.232 | 1.120 | 0.905 | 0.854 | 0.181 | 0.225 | 0.216 | 0.235 |
| 400 | 1.733 | 1.552 | 1.247 | 1.153 | 0.236 | 0.307 | 0.310 | 0.326 |
| 350 | | | | | 0.305 | 0.410 | 0.428 | 0.440 |
| 300 | | | | | 0.372 | 0.518 | 0.555 | 0.572 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 844.1 | 759.4 | 502.0 | 630.3 | 210.4 | 245.5 | 184.0 | |
| 900 | 653.4 | 647.2 | 491.9 | 465.2 | 226.1 | 245.9 | 198.1 | 230.7 |
| 850 | 500.3 | 482.8 | 438.8 | 373.6 | 235.2 | 246.4 | 210.1 | 240.4 |
| 800 | 421.1 | 396.4 | 359.3 | 307.1 | 241.0 | 246.8 | 222.1 | 250.2 |
| 750 | 341.9 | 333.1 | 318.6 | 262.5 | 238.0 | 222.8 | 219.5 | 255.9 |
| 700 | 214.4 | 269.8 | 277.9 | 217.8 | 235.1 | 202.7 | 215.1 | 245.5 |
| 650 | 149.1 | 178.3 | 228.2 | 174.7 | 232.2 | 199.9 | 210.8 | 235.1 |
| 600 | 128.9 | 126.6 | 136.1 | 141.3 | 226.2 | 197.1 | 203.5 | 223.9 |
| 550 | 114.2 | 114.2 | 127.6 | 129.9 | 215.1 | 194.2 | 185.1 | 208.1 |
| 500 | 114.9 | 138.8 | 131.7 | 140.2 | 204.1 | 179.5 | 166.6 | 192.3 |
| 450 | 132.8 | 147.7 | 145.7 | 162.9 | 197.4 | 164.8 | 157.7 | 180.5 |
| 400 | 190.7 | 238.3 | 174.3 | 197.6 | 195.4 | 178.3 | 156.9 | 176.9 |
| 350 | | | | | 221.8 | 198.3 | 179.6 | 191.7 |
| 300 | | | | | 367.6 | 251.5 | 246.4 | 267.5 |
| LONG | -67.17 | -66.01 | -64.79 | -64.02 | -57.36 | -54.82 | -51.35 | -47.47 |
| LAT | -58.44 | -60.30 | -62.16 | -63.10 | -69.35 | -71.08 | -72.72 | -74.33 |
| QUAL | 23 | 21 | 31 | 33 | 21 | 31 | 31 | 31 |

PASS 4803 AT SOLANT, 63 916

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 55946 |
| 1000 | 0.026 |
| 950 | 0.033 |
| 900 | 0.039 |
| 850 | 0.047 |
| 800 | 0.055 |
| 750 | 0.068 |
| 700 | 0.083 |
| 650 | 0.102 |
| 600 | 0.124 |
| 550 | 0.151 |
| 500 | 0.184 |
| 450 | 0.244 |
| 400 | 0.317 |
| 350 | 0.408 |
| 300 | 0.523 |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 248.9 |
| 900 | 261.9 |
| 850 | 260.8 |
| 800 | 259.7 |
| 750 | 257.2 |
| 700 | 254.3 |
| 650 | 251.5 |
| 600 | 248.6 |
| 550 | 242.9 |
| 500 | 224.2 |
| 450 | 205.5 |
| 400 | 202.9 |
| 350 | 203.5 |
| 300 | 219.0 |

LONG -42.45
LAT -75.87

QUAL 31

PASS 4816 AT RESLUT, 63 917

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 40507 | 40542 | 40600 | 40617 | 40635 | 40652 | 40710 | 40728 |
| 1000 | 0.082 | 0.085 | 0.093 | 0.091 | 0.074 | 0.049 | 0.050 | 0.042 |
| 950 | 0.096 | 0.098 | 0.109 | 0.107 | 0.089 | 0.059 | 0.059 | 0.051 |
| 900 | 0.115 | 0.120 | 0.124 | 0.125 | 0.108 | 0.068 | 0.069 | 0.061 |
| 850 | 0.137 | 0.143 | 0.144 | 0.148 | 0.130 | 0.079 | 0.082 | 0.073 |
| 800 | 0.163 | 0.169 | 0.175 | 0.174 | 0.155 | 0.095 | 0.100 | 0.088 |
| 750 | 0.202 | 0.204 | 0.219 | 0.218 | 0.191 | 0.115 | 0.123 | 0.106 |
| 700 | 0.250 | 0.247 | 0.276 | 0.273 | 0.238 | 0.146 | 0.157 | 0.129 |
| 650 | 0.308 | 0.312 | 0.344 | 0.341 | 0.295 | 0.186 | 0.201 | 0.183 |
| 600 | 0.375 | 0.398 | 0.430 | 0.432 | 0.362 | 0.251 | 0.255 | 0.254 |
| 550 | 0.485 | 0.511 | 0.531 | 0.552 | 0.477 | 0.354 | 0.353 | 0.349 |
| 500 | 0.618 | 0.649 | 0.651 | 0.698 | 0.620 | 0.492 | 0.493 | 0.481 |
| 450 | 0.805 | 0.843 | 0.820 | 0.885 | 0.807 | 0.653 | 0.657 | 0.651 |
| 400 | 1.039 | 1.082 | 1.032 | 1.096 | 1.036 | 0.838 | 0.848 | 0.870 |
| 350 | 1.315 | | 1.305 | | 1.310 | 1.047 | 1.076 | 1.101 |
| 300 | | | | | 1.587 | 1.295 | 1.343 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 288.5 | 325.2 | 356.9 | 305.3 | 265.2 | 325.5 | 307.1 | 262.3 |
| 900 | 282.9 | 296.5 | 338.1 | 301.0 | 267.1 | 335.2 | 292.9 | 264.7 |
| 850 | 268.1 | 282.6 | 286.8 | 279.6 | 259.3 | 289.9 | 272.5 | 257.8 |
| 800 | 254.1 | 271.0 | 269.1 | 258.2 | 250.8 | 267.5 | 247.8 | 243.1 |
| 750 | 249.5 | 259.2 | 260.3 | 248.0 | 243.7 | 245.1 | 222.9 | 228.4 |
| 700 | 244.9 | 247.5 | 251.5 | 238.0 | 237.0 | 218.7 | 210.4 | 213.4 |
| 650 | 240.3 | 225.2 | 242.7 | 228.1 | 230.3 | 192.0 | 199.3 | 193.5 |
| 600 | 235.7 | 203.2 | 239.3 | 221.7 | 223.6 | 158.6 | 188.3 | 173.6 |
| 550 | 218.4 | 203.5 | 237.0 | 217.6 | 207.7 | 155.0 | 179.1 | 161.9 |
| 500 | 200.6 | 203.8 | 233.6 | 217.0 | 191.6 | 167.9 | 170.7 | 164.9 |
| 450 | 199.0 | 200.3 | 223.2 | 224.7 | 198.5 | 191.0 | 185.4 | 176.2 |
| 400 | 204.7 | 207.0 | 213.6 | 244.1 | 213.8 | 211.6 | 202.3 | 197.1 |
| 350 | 216.8 | | 204.7 | | 240.2 | 228.3 | 217.0 | 232.2 |
| 300 | | | | | 291.4 | 241.5 | 232.7 | |
| LONG | -99.24 | -94.56 | -92.15 | -90.53 | -88.81 | -87.18 | -85.72 | -84.46 |
| LAT | 75.83 | 74.29 | 73.50 | 72.69 | 71.83 | 71.01 | 70.12 | 69.22 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 4816 AT RESLUT, 63 917

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 40745 | 40803 | 40820 | 40838 | 40855 | 40913 | 40930 | 40948 |
| 1000 | 0.055 | 0.051 | 0.043 | 0.042 | 0.038 | 0.046 | 0.032 | 0.039 |
| 950 | 0.064 | 0.059 | 0.053 | 0.049 | 0.047 | 0.053 | 0.040 | 0.046 |
| 900 | 0.072 | 0.068 | 0.060 | 0.057 | 0.054 | 0.060 | 0.046 | 0.053 |
| 850 | 0.088 | 0.078 | 0.069 | 0.065 | 0.064 | 0.069 | 0.055 | 0.060 |
| 800 | 0.110 | 0.092 | 0.079 | 0.074 | 0.075 | 0.080 | 0.066 | 0.070 |
| 750 | 0.138 | 0.108 | 0.091 | 0.085 | 0.088 | 0.093 | 0.080 | 0.088 |
| 700 | 0.174 | 0.127 | 0.104 | 0.101 | 0.108 | 0.109 | 0.101 | 0.111 |
| 650 | 0.223 | 0.173 | 0.143 | 0.142 | 0.148 | 0.144 | 0.142 | 0.144 |
| 600 | 0.297 | 0.235 | 0.201 | 0.197 | 0.209 | 0.214 | 0.194 | 0.187 |
| 550 | 0.392 | 0.329 | 0.289 | 0.283 | 0.297 | 0.302 | 0.266 | 0.268 |
| 500 | 0.522 | 0.471 | 0.427 | 0.422 | 0.424 | 0.412 | 0.370 | 0.383 |
| 450 | 0.684 | 0.653 | 0.605 | 0.581 | 0.584 | 0.553 | 0.513 | 0.519 |
| 400 | 0.904 | 0.861 | 0.820 | 0.758 | 0.789 | 0.731 | 0.685 | 0.684 |
| 350 | 1.170 | 1.069 | 1.076 | 0.949 | 1.076 | 0.933 | | 0.883 |
| 300 | | 1.261 | | 1.154 | | 1.145 | | 1.112 |
| HEIGHT | SCALE HEIGHT KM | | | | | | | |
| 950 | 422.9 | 358.6 | 335.7 | 336.0 | 296.1 | 380.5 | 335.1 | |
| 900 | 309.2 | 339.0 | 352.6 | 352.2 | 310.4 | 347.7 | 293.8 | 371.9 |
| 850 | 278.1 | 317.0 | 334.5 | 332.2 | 294.8 | 326.3 | 274.9 | 328.2 |
| 800 | 247.0 | 296.2 | 316.5 | 312.2 | 278.8 | 304.9 | 255.9 | 288.4 |
| 750 | 223.6 | 275.5 | 298.4 | 292.3 | 262.9 | 283.5 | 237.0 | 253.1 |
| 700 | 207.5 | 254.6 | 280.3 | 261.6 | 230.2 | 262.1 | 217.4 | 217.8 |
| 650 | 195.5 | 200.9 | 194.0 | 190.4 | 160.0 | 230.4 | 196.4 | 192.2 |
| 600 | 188.8 | 157.0 | 141.5 | 144.8 | 145.5 | 186.4 | 175.4 | 168.3 |
| 550 | 182.5 | 144.7 | 135.7 | 138.7 | 145.5 | 153.6 | 159.9 | 159.5 |
| 500 | 183.7 | 151.3 | 140.5 | 148.6 | 153.6 | 164.7 | 152.4 | 155.7 |
| 450 | 185.0 | 172.3 | 155.9 | 174.9 | 160.4 | 178.6 | 170.4 | 172.6 |
| 400 | 187.0 | 213.5 | 174.0 | 206.6 | 163.7 | 194.6 | 194.2 | 190.0 |
| 350 | 201.9 | 271.0 | 192.3 | 240.2 | 169.2 | 226.6 | | 207.9 |
| 300 | | 336.1 | | 271.3 | | 265.2 | | 228.9 |
| LONG | -83.27 | -82.06 | -81.16 | -80.21 | -79.30 | -78.50 | -77.80 | -77.06 |
| LAT | 68.36 | 67.44 | 66.56 | 65.62 | 64.74 | 63.79 | 62.88 | 61.93 |
| QUAL | 23 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 4816 AT RESLUT, 63 917

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 41024 | 41058 | 41133 | 41243 | 41319 | 41354 |
| 1000 | 0.046 | 0.043 | 0.030 | 0.028 | 0.024 | 0.020 |
| 950 | 0.056 | 0.053 | 0.037 | 0.034 | 0.029 | 0.025 |
| 900 | 0.064 | 0.060 | 0.043 | 0.039 | 0.034 | 0.031 |
| 850 | 0.075 | 0.065 | 0.048 | 0.045 | 0.039 | 0.037 |
| 800 | 0.088 | 0.071 | 0.055 | 0.054 | 0.045 | 0.044 |
| 750 | 0.105 | 0.078 | 0.063 | 0.067 | 0.054 | 0.052 |
| 700 | 0.124 | 0.091 | 0.073 | 0.082 | 0.070 | 0.064 |
| 650 | 0.159 | 0.107 | 0.086 | 0.100 | 0.089 | 0.079 |
| 600 | 0.212 | 0.126 | 0.104 | 0.121 | 0.113 | 0.096 |
| 550 | 0.283 | 0.148 | 0.128 | 0.153 | 0.140 | 0.118 |
| 500 | 0.389 | 0.175 | 0.164 | 0.211 | 0.172 | 0.150 |
| 450 | 0.519 | 0.236 | 0.218 | 0.296 | 0.209 | 0.190 |
| 400 | 0.668 | 0.320 | 0.294 | 0.385 | 0.249 | 0.270 |
| 350 | 0.831 | | 0.404 | 0.486 | 0.294 | |
| 300 | 1.024 | | 0.568 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 323.5 | | | 316.1 | | |
| 900 | 317.4 | 522.0 | 369.8 | 335.7 | 316.8 | 262.2 |
| 850 | 299.4 | 562.3 | 388.9 | 309.2 | 302.1 | 263.3 |
| 800 | 284.6 | 493.8 | 371.7 | 278.0 | 287.3 | 264.4 |
| 750 | 269.9 | 426.6 | 345.8 | 244.0 | 273.3 | 262.9 |
| 700 | 255.1 | 361.5 | 305.9 | 236.1 | 259.8 | 257.7 |
| 650 | 229.0 | 310.4 | 280.7 | 232.4 | 246.3 | 252.5 |
| 600 | 196.1 | 290.9 | 259.0 | 228.7 | 232.8 | 247.3 |
| 550 | 170.5 | 271.4 | 230.6 | 194.4 | 241.0 | 233.8 |
| 500 | 167.2 | 246.7 | 191.0 | 159.7 | 252.9 | 207.6 |
| 450 | 189.7 | 184.2 | 176.3 | 172.8 | 264.9 | 179.3 |
| 400 | 210.7 | 165.2 | 167.6 | 201.2 | 276.9 | 125.8 |
| 350 | 230.2 | | 150.4 | 225.3 | 288.9 | |
| 300 | 240.5 | | 124.8 | | | |
| LONG | -75.78 | -74.67 | -73.73 | -72.06 | -71.34 | -70.68 |
| LAT | 60.00 | 58.17 | 56.26 | 52.42 | 50.44 | 48.50 |
| QUAL | 23 | 33 | 23 | 23 | 23 | 13 |

PASS 4816 AT OTTAWA, 63 917

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 41209 | 41240 | 41319 | 41350 | 41408 | 41736 | 41811 | 41842 |
| 1000 | 0.033 | 0.038 | 0.026 | 0.026 | 0.041 | 0.046 | 0.065 | 0.075 |
| 950 | 0.037 | 0.043 | 0.030 | 0.032 | 0.045 | 0.052 | 0.071 | 0.083 |
| 900 | 0.044 | 0.047 | 0.035 | 0.037 | 0.052 | 0.057 | 0.076 | 0.086 |
| 850 | 0.051 | 0.053 | 0.041 | 0.043 | 0.059 | 0.062 | 0.082 | 0.093 |
| 800 | 0.061 | 0.061 | 0.048 | 0.051 | 0.070 | 0.070 | 0.090 | 0.103 |
| 750 | 0.073 | 0.072 | 0.057 | 0.060 | 0.083 | 0.080 | 0.104 | 0.119 |
| 700 | 0.088 | 0.087 | 0.068 | 0.071 | 0.099 | 0.095 | 0.127 | 0.146 |
| 650 | 0.106 | 0.107 | 0.083 | 0.085 | 0.117 | 0.125 | 0.166 | 0.189 |
| 600 | 0.133 | 0.138 | 0.099 | 0.103 | 0.143 | 0.181 | 0.232 | 0.267 |
| 550 | 0.172 | 0.179 | 0.123 | 0.126 | 0.177 | 0.264 | 0.343 | 0.399 |
| 500 | 0.229 | 0.240 | 0.155 | 0.158 | 0.222 | 0.407 | 0.562 | 0.592 |
| 450 | 0.300 | 0.318 | 0.192 | 0.205 | 0.280 | | 0.840 | 0.886 |
| 400 | 0.379 | 0.405 | 0.247 | 0.281 | 0.355 | | 1.162 | 1.237 |
| 350 | 0.463 | 0.498 | 0.320 | 0.416 | 0.470 | | | |
| 300 | | | | 0.629 | 0.623 | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 381.7 | 613.9 | 420.8 | 356.2 | 485.5 | 481.6 | 668.4 | 870.0 |
| 900 | 311.1 | 474.9 | 335.7 | 315.5 | 355.0 | 553.8 | 784.7 | 701.4 |
| 850 | 294.8 | 389.4 | 310.1 | 312.1 | 330.0 | 502.8 | 563.8 | 533.7 |
| 800 | 282.1 | 331.9 | 293.7 | 308.5 | 301.0 | 414.6 | 433.4 | 429.0 |
| 750 | 274.7 | 292.4 | 277.7 | 293.0 | 283.6 | 335.4 | 297.8 | 309.9 |
| 700 | 274.3 | 252.8 | 268.0 | 281.1 | 277.8 | 251.5 | 216.4 | 228.8 |
| 650 | 242.1 | 215.4 | 259.5 | 269.8 | 272.0 | 158.7 | 176.5 | 174.2 |
| 600 | 209.4 | 203.0 | 251.1 | 255.0 | 252.2 | 140.4 | 146.1 | 136.8 |
| 550 | 189.6 | 189.3 | 241.1 | 239.1 | 227.9 | 127.2 | 117.0 | 127.3 |
| 500 | 183.5 | 174.6 | 230.5 | 212.5 | 218.2 | 124.7 | 108.6 | 125.4 |
| 450 | 201.8 | 192.7 | 220.0 | 177.1 | 210.8 | | 136.3 | 131.5 |
| 400 | 231.9 | 225.8 | 196.3 | 147.7 | 202.4 | | 201.0 | 199.4 |
| 350 | 260.1 | 267.2 | 165.7 | 123.5 | 189.7 | | | |
| 300 | | | | 127.7 | 191.4 | | | |
| LONG | -72.61 | -72.13 | -71.34 | -70.76 | -70.44 | -67.73 | -67.38 | -67.09 |
| LAT | 54.29 | 52.59 | 50.44 | 48.72 | 47.73 | 36.11 | 34.15 | 32.40 |
| QUAL | 12 | 12 | 13 | 12 | 12 | 23 | 12 | 12 |

PASS 4816 AT OTTAWA, 63 917

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 41957 | 42032 | 42107 |
| 1000 | 0.086 | 0.092 | 0.110 |
| 950 | 0.093 | 0.099 | 0.116 |
| 900 | 0.099 | 0.105 | 0.121 |
| 850 | 0.105 | 0.111 | 0.128 |
| 800 | 0.115 | 0.120 | 0.138 |
| 750 | 0.126 | 0.132 | 0.149 |
| 700 | 0.150 | 0.150 | 0.168 |
| 650 | 0.190 | 0.183 | 0.206 |
| 600 | 0.259 | 0.242 | 0.276 |
| 550 | 0.378 | 0.344 | 0.410 |
| 500 | 0.563 | 0.541 | 0.698 |
| 450 | 0.866 | 0.874 | 1.101 |
| 400 | 1.290 | 1.253 | |
| 350 | | | |
| 300 | | | |

| HEIGHT | SCALE HEIGHT, KM | | |
|---|---|---|---|
| 950 | 820.9 | 858.6 | 1382.1 |
| 900 | 805.1 | 974.2 | 939.3 |
| 850 | 664.4 | 731.3 | 770.6 |
| 800 | 523.2 | 554.4 | 623.3 |
| 750 | 395.1 | 463.3 | 534.7 |
| 700 | 275.0 | 333.2 | 344.3 |
| 650 | 190.9 | 217.2 | 207.1 |
| 600 | 149.6 | 167.3 | 153.8 |
| 550 | 127.5 | 132.8 | 111.4 |
| 500 | 117.6 | 107.3 | 96.3 |
| 450 | 125.4 | 122.5 | 136.7 |
| 400 | 164.7 | 164.4 | |
| 350 | | | |
| 300 | | | |

| | | | |
|---|---|---|---|
| LONG | -66.44 | -66.18 | -65.92 |
| LAT | 28.24 | 26.24 | 24.24 |
| QUAL | 22 | 22 | 22 |

PASS 4616 AT QUITOE, 63 917

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 42702 | 42720 | 42757 | 42852 | 42907 | 42925 | 43000 | 43035 |
| 1000 | 0.110 | 0.109 | 0.115 | 0.117 | 0.109 | 0.117 | 0.114 | 0.126 |
| 950 | 0.121 | 0.120 | 0.126 | 0.126 | 0.118 | 0.128 | 0.126 | 0.139 |
| 900 | 0.129 | 0.129 | 0.138 | 0.136 | 0.127 | 0.138 | 0.139 | 0.164 |
| 850 | 0.143 | 0.141 | 0.149 | 0.146 | 0.138 | 0.151 | 0.160 | 0.198 |
| 800 | 0.157 | 0.157 | 0.164 | 0.158 | 0.153 | 0.172 | 0.192 | 0.257 |
| 750 | 0.180 | 0.175 | 0.188 | 0.180 | 0.177 | 0.212 | 0.249 | 0.348 |
| 700 | 0.215 | 0.201 | 0.217 | 0.212 | 0.226 | | 0.349 | 0.496 |
| 650 | 0.264 | 0.247 | 0.265 | 0.274 | 0.323 | | | 0.694 |
| 600 | 0.347 | 0.334 | 0.354 | 0.409 | | | | |
| 550 | 0.506 | 0.492 | 0.543 | 0.796 | | | | |
| 500 | 0.819 | 0.810 | 1.309 | 1.647 | | | | |
| 450 | 1.380 | 1.378 | | | | | | |
| 400 | 2.238 | | | | | | | |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 820.3 | 765.2 | 592.0 | 666.1 | 720.8 | 681.6 | 562.6 | 397.4 |
| 900 | 639.7 | 642.6 | 647.2 | 737.3 | 652.7 | 578.8 | 434.9 | 295.9 |
| 850 | 515.6 | 501.9 | 552.2 | 675.6 | 538.9 | 463.8 | 316.6 | 252.2 |
| 800 | 435.2 | 463.2 | 457.5 | 517.3 | 436.3 | 318.7 | 240.7 | 223.1 |
| 750 | 329.4 | 417.8 | 381.2 | 357.1 | 268.1 | 220.0 | 172.8 | 190.1 |
| 700 | 268.2 | 307.8 | 305.5 | 251.8 | 174.8 | | 121.7 | 163.0 |
| 650 | 221.8 | 199.3 | 216.0 | 170.2 | 105.5 | | | 155.8 |
| 600 | 166.4 | 148.6 | 150.4 | 103.4 | | | | |
| 550 | 122.8 | 117.4 | 91.0 | 58.3 | | | | |
| 500 | 100.3 | 94.8 | 74.2 | 83.9 | | | | |
| 450 | 101.3 | 103.0 | | | | | | |
| 400 | 96.9 | | | | | | | |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -63.79 | -63.70 | -63.61 | -63.52 | -63.13 | -63.04 | -62.85 | -62.66 |
| LAT | 4.18 | 3.16 | 1.06 | -0.92 | -2.90 | -3.91 | -5.89 | -7.87 |
| QUAL | 33 | 23 | 23 | 23 | 23 | 23 | 33 | 23 |

PASS 4816 AT AGASTA, 63 917

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 43648 | 43724 | 43759 | 43834 | 43909 | 43944 | 44001 | 44036 |
| 1000 | 0.126 | 0.118 | 0.117 | 0.123 | 0.118 | 0.120 | 0.116 | 0.114 |
| 950 | 0.133 | 0.128 | 0.127 | 0.134 | 0.125 | 0.128 | 0.125 | 0.122 |
| 900 | 0.144 | 0.135 | 0.136 | 0.141 | 0.133 | 0.135 | 0.133 | 0.130 |
| 850 | 0.156 | 0.144 | 0.146 | 0.150 | 0.143 | 0.143 | 0.144 | 0.140 |
| 800 | 0.175 | 0.161 | 0.158 | 0.163 | 0.157 | 0.158 | 0.156 | 0.150 |
| 750 | 0.199 | 0.191 | 0.183 | 0.181 | 0.175 | 0.182 | 0.174 | 0.180 |
| 700 | 0.236 | 0.225 | 0.218 | 0.209 | 0.197 | 0.214 | 0.210 | 0.227 |
| 650 | 0.292 | 0.292 | 0.272 | 0.256 | 0.233 | 0.259 | 0.257 | 0.295 |
| 600 | 0.416 | 0.406 | 0.342 | 0.337 | 0.294 | 0.315 | 0.371 | 0.400 |
| 550 | 0.624 | 0.565 | 0.517 | 0.481 | 0.413 | 0.459 | 0.554 | 0.534 |
| 500 | 0.940 | 0.950 | 0.843 | 0.773 | 0.666 | 0.747 | 0.840 | 0.883 |
| 450 | 1.799 | 1.537 | 1.361 | 1.319 | 1.158 | 1.161 | 1.257 | 1.339 |
| 400 | 3.050 | | 2.166 | 2.110 | 1.829 | 1.751 | 1.834 | 1.961 |
| 350 | | | 3.128 | 2.951 | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 733.2 | 796.4 | 668.9 | 868.4 | 841.5 | 949.1 | 719.5 | 758.6 |
| 900 | 655.5 | 739.7 | 754.9 | 876.1 | 756.0 | 813.3 | 651.6 | 698.8 |
| 850 | 546.2 | 611.9 | 603.7 | 690.6 | 595.8 | 655.8 | 576.7 | 596.3 |
| 800 | 445.8 | 454.4 | 439.0 | 537.2 | 495.6 | 522.2 | 501.9 | 493.9 |
| 750 | 357.5 | 295.9 | 371.5 | 432.3 | 439.0 | 396.8 | 421.7 | 384.4 |
| 700 | 273.9 | 253.8 | 266.8 | 313.7 | 382.4 | 299.4 | 320.1 | 273.4 |
| 650 | 199.0 | 176.2 | 226.6 | 217.4 | 290.8 | 255.6 | 218.5 | 189.8 |
| 600 | 155.8 | 144.0 | 187.3 | 166.4 | 187.2 | 211.8 | 166.8 | 166.9 |
| 550 | 125.0 | 129.2 | 114.3 | 127.8 | 127.5 | 139.7 | 130.7 | 144.1 |
| 500 | 103.6 | 102.5 | 135.6 | 101.9 | 98.7 | 108.8 | 125.7 | 111.3 |
| 450 | 81.5 | 103.2 | 104.1 | 100.1 | 102.1 | 116.2 | 126.3 | 125.4 |
| 400 | 103.7 | | 119.4 | 117.9 | 121.9 | 140.5 | 145.5 | 152.5 |
| 350 | | | 170.9 | 238.7 | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -60.25 | -59.95 | -59.65 | -59.31 | -58.96 | -58.58 | -58.40 | -57.97 |
| LAT | -28.69 | -30.90 | -32.65 | -34.81 | -36.76 | -38.71 | -39.66 | -41.59 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 4816 AT AGASTA, 63 917

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 44112 | 44147 | 44222 | 44332 | 44407 |
| 1000 | 0.115 | 0.114 | 0.114 | 0.108 | 0.099 |
| 950 | 0.125 | 0.121 | 0.124 | 0.114 | 0.105 |
| 900 | 0.132 | 0.128 | 0.132 | 0.122 | 0.112 |
| 850 | 0.142 | 0.136 | 0.142 | 0.132 | 0.119 |
| 800 | 0.154 | 0.151 | 0.152 | 0.146 | 0.126 |
| 750 | 0.174 | 0.169 | 0.177 | 0.165 | 0.153 |
| 700 | 0.210 | 0.190 | 0.211 | 0.191 | 0.190 |
| 650 | 0.257 | 0.227 | 0.260 | 0.289 | 0.233 |
| 600 | 0.373 | 0.313 | 0.345 | 0.411 | 0.283 |
| 550 | 0.552 | 0.428 | 0.573 | 0.591 | 0.461 |
| 500 | 0.858 | 0.631 | 0.848 | 0.972 | 0.762 |
| 450 | 1.328 | 1.096 | 1.252 | 1.449 | 1.130 |
| 400 | 1.942 | 1.645 | 1.788 | 2.037 | 1.708 |
| 350 | | | | | |
| 300 | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | |
|---|---|---|---|---|---|
| 950 | 701.5 | 873.3 | 695.0 | 786.6 | 842.0 |
| 900 | 654.7 | 774.7 | 695.0 | 662.7 | 747.7 |
| 850 | 575.8 | 638.6 | 609.2 | 565.9 | 648.6 |
| 800 | 496.8 | 476.6 | 523.2 | 467.7 | 549.6 |
| 750 | 409.5 | 401.9 | 390.5 | 366.9 | 362.4 |
| 700 | 314.4 | 346.3 | 267.0 | 266.1 | 228.9 |
| 650 | 219.3 | 251.2 | 213.7 | 164.1 | 206.6 |
| 600 | 167.3 | 149.2 | 160.1 | 134.8 | 184.3 |
| 550 | 125.3 | 138.5 | 113.8 | 125.4 | 112.0 |
| 500 | 117.7 | 120.6 | 126.6 | 116.1 | 108.8 |
| 450 | 122.0 | 110.1 | 131.2 | 135.7 | 113.8 |
| 400 | 162.4 | 147.3 | 181.3 | 173.4 | 142.1 |
| 350 | | | | | |
| 300 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LONG | -57.50 | -57.00 | -56.45 | -55.20 | -54.49 |
| LAT | -46.58 | -46.51 | -47.44 | -51.26 | -53.17 |
| QUAL | 23 | 23 | 23 | 23 | 23 |

PASS 4816 AT SOLANT, 63 917

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 43724 | 43759 | 43834 | 43909 | 43944 | 44002 | 44037 | 44112 |
| 1000 | 0.130 | 0.124 | 0.123 | 0.132 | 0.130 | 0.114 | 0.123 | 0.128 |
| 950 | 0.139 | 0.136 | 0.132 | 0.139 | 0.140 | 0.122 | 0.130 | 0.138 |
| 900 | 0.150 | 0.146 | 0.139 | 0.146 | 0.149 | 0.130 | 0.137 | 0.148 |
| 850 | 0.162 | 0.157 | 0.147 | 0.156 | 0.159 | 0.139 | 0.146 | 0.159 |
| 800 | 0.188 | 0.169 | 0.159 | 0.172 | 0.174 | 0.150 | 0.160 | 0.171 |
| 750 | 0.232 | 0.198 | 0.174 | 0.192 | 0.200 | 0.163 | 0.181 | 0.194 |
| 700 | 0.290 | 0.237 | 0.203 | 0.224 | 0.238 | 0.203 | 0.217 | 0.224 |
| 650 | 0.361 | 0.288 | 0.249 | 0.273 | 0.289 | 0.258 | 0.279 | 0.280 |
| 600 | 0.491 | 0.400 | 0.317 | 0.349 | 0.385 | 0.343 | 0.394 | 0.382 |
| 550 | 0.758 | 0.629 | 0.464 | 0.498 | 0.582 | 0.505 | 0.575 | 0.582 |
| 500 | 1.148 | 1.015 | 0.772 | 0.802 | 0.881 | 0.815 | 0.865 | 0.906 |
| 450 | 1.769 | 1.571 | 1.287 | 1.282 | 1.306 | 1.229 | 1.328 | 1.378 |
| 400 | | 2.410 | 2.099 | 1.953 | 1.897 | 1.806 | 1.945 | 1.994 |
| 350 | | | 2.975 | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 681.1 | 704.3 | 962.9 | 1025.9 | 735.0 | 764.4 | 930.5 | 706.2 |
| 900 | 582.9 | 675.4 | 876.1 | 814.8 | 724.5 | 696.1 | 838.4 | 680.0 |
| 850 | 484.8 | 571.8 | 712.0 | 656.0 | 616.5 | 618.0 | 666.8 | 604.4 |
| 800 | 408.3 | 468.1 | 581.2 | 546.5 | 500.8 | 539.8 | 509.0 | 528.9 |
| 750 | 344.4 | 387.3 | 462.2 | 437.1 | 375.7 | 457.7 | 368.9 | 424.2 |
| 700 | 280.6 | 307.2 | 333.0 | 341.5 | 283.2 | 313.0 | 258.4 | 316.2 |
| 650 | 216.7 | 227.2 | 223.1 | 259.2 | 228.2 | 195.0 | 183.2 | 214.4 |
| 600 | 145.2 | 155.6 | 179.8 | 184.1 | 153.9 | 162.2 | 144.8 | 141.6 |
| 550 | 117.6 | 113.8 | 121.4 | 119.0 | 116.4 | 119.4 | 128.8 | 119.6 |
| 500 | 117.3 | 115.3 | 96.2 | 106.0 | 125.7 | 114.2 | 122.3 | 117.6 |
| 450 | 111.4 | 114.4 | 99.5 | 113.5 | 128.3 | 125.5 | 121.1 | 126.5 |
| 400 | | 134.7 | 115.6 | 124.7 | 147.0 | 144.2 | 149.2 | 162.2 |
| 350 | | | 225.4 | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -59.95 | -59.65 | -59.31 | -58.96 | -58.58 | -58.39 | -57.95 | -57.50 |
| LAT | -30.90 | -32.85 | -34.81 | -36.76 | -38.71 | -39.71 | -41.65 | -43.58 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 23 | 23 | 23 |

PASS 4816 AT SOLANT, 63 917

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 44147 | 44222 | 44257 | 44332 | 44407 | 44451 | 44526 | 44601 |
| 1000 | 0.117 | 0.121 | 0.124 | 0.111 | 0.099 | 0.099 | 0.089 | 0.081 |
| 950 | 0.125 | 0.130 | 0.132 | 0.118 | 0.106 | 0.106 | 0.097 | 0.086 |
| 900 | 0.133 | 0.139 | 0.141 | 0.125 | 0.113 | 0.114 | 0.103 | 0.093 |
| 850 | 0.142 | 0.148 | 0.153 | 0.135 | 0.123 | 0.124 | 0.113 | 0.103 |
| 800 | 0.157 | 0.163 | 0.167 | 0.150 | 0.135 | 0.136 | 0.131 | 0.117 |
| 750 | 0.175 | 0.188 | 0.192 | 0.168 | 0.154 | 0.161 | 0.151 | 0.140 |
| 700 | 0.196 | 0.223 | 0.228 | 0.190 | 0.180 | 0.195 | 0.185 | 0.169 |
| 650 | 0.240 | 0.274 | 0.291 | 0.259 | 0.239 | 0.237 | 0.246 | 0.224 |
| 600 | 0.353 | 0.402 | 0.408 | 0.353 | 0.337 | 0.337 | 0.342 | 0.312 |
| 550 | 0.478 | 0.605 | 0.602 | 0.556 | 0.498 | 0.507 | 0.524 | 0.476 |
| 500 | 0.816 | 0.888 | 0.919 | 0.898 | 0.805 | 0.764 | 0.778 | 0.713 |
| 450 | 1.295 | 1.328 | 1.367 | 1.419 | 1.269 | 1.141 | 1.113 | 1.072 |
| 400 | 1.859 | 1.881 | 1.966 | 2.105 | 1.849 | 1.586 | 1.502 | 1.457 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 827.1 | 738.8 | 745.8 | 856.1 | 698.1 | 682.9 | 713.8 | 688.4 |
| 900 | 765.7 | 704.2 | 655.4 | 730.9 | 628.5 | 606.6 | 619.4 | 572.4 |
| 850 | 628.7 | 601.1 | 566.7 | 578.4 | 551.4 | 518.3 | 474.7 | 467.5 |
| 800 | 474.2 | 490.2 | 476.5 | 445.2 | 468.5 | 429.9 | 339.9 | 376.1 |
| 750 | 414.1 | 373.3 | 362.4 | 376.6 | 370.0 | 362.3 | 293.7 | 307.2 |
| 700 | 353.9 | 272.8 | 259.7 | 304.5 | 270.6 | 295.7 | 233.1 | 238.2 |
| 650 | 186.3 | 191.3 | 190.1 | 157.7 | 164.5 | 229.0 | 170.7 | 184.4 |
| 600 | 150.1 | 148.2 | 150.9 | 139.6 | 141.8 | 175.7 | 139.4 | 140.4 |
| 550 | 115.7 | 128.5 | 128.1 | 105.5 | 117.1 | 130.3 | 125.6 | 121.4 |
| 500 | 106.0 | 129.7 | 125.2 | 109.3 | 109.5 | 126.3 | 134.9 | 124.3 |
| 450 | 124.1 | 133.5 | 131.3 | 118.0 | 122.5 | 134.9 | 150.3 | 138.7 |
| 400 | 184.4 | 180.9 | 166.5 | 163.3 | 153.1 | 191.4 | 233.8 | 246.1 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -57.00 | -56.45 | -55.87 | -55.20 | -54.49 | -53.46 | -52.51 | -51.51 |
| LAT | -45.51 | -47.44 | -49.36 | -51.26 | -53.17 | -55.55 | -57.70 | -59.90 |
| QUAL | 23 | 23 | 23 | 23 | 23 | 21 | 21 | 21 |

PASS 4816 AT SOLANT, 63 917

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 44636 | 44654 | 44839 | 44914 | 44949 | 45024 |
| 1000 | 0.063 | 0.057 | 0.044 | 0.030 | 0.040 | 0.047 |
| 950 | 0.068 | 0.061 | 0.053 | 0.036 | 0.047 | 0.055 |
| 900 | 0.073 | 0.065 | 0.065 | 0.043 | 0.055 | 0.064 |
| 850 | 0.078 | 0.070 | 0.078 | 0.052 | 0.065 | 0.075 |
| 800 | 0.091 | 0.078 | 0.092 | 0.063 | 0.077 | 0.089 |
| 750 | 0.112 | 0.089 | 0.113 | 0.077 | 0.091 | 0.105 |
| 700 | 0.138 | 0.107 | 0.137 | 0.093 | 0.108 | 0.125 |
| 650 | 0.170 | 0.130 | 0.164 | 0.111 | 0.136 | 0.153 |
| 600 | 0.249 | 0.211 | 0.197 | 0.146 | 0.168 | 0.186 |
| 550 | 0.427 | 0.295 | 0.247 | 0.190 | 0.207 | 0.223 |
| 500 | 0.608 | 0.491 | 0.307 | 0.242 | 0.252 | 0.271 |
| 450 | 0.896 | 0.726 | 0.383 | 0.309 | 0.331 | 0.343 |
| 400 | | 0.987 | 0.478 | 0.405 | 0.428 | 0.429 |
| 350 | | | 0.564 | 0.523 | 0.546 | 0.544 |
| 300 | | | | 0.667 | 0.682 | 0.674 |
| HEIGHT | SCALE HEIGHT, KM | | | | | |
| 950 | 703.1 | 769.6 | 258.2 | 258.1 | 296.6 | 318.7 |
| 900 | 604.2 | 663.8 | 259.4 | 254.1 | 296.8 | 313.4 |
| 850 | 505.4 | 566.2 | 262.6 | 250.8 | 290.7 | 305.6 |
| 800 | 384.2 | 471.1 | 265.4 | 247.9 | 282.0 | 293.6 |
| 750 | 256.7 | 376.0 | 263.4 | 244.9 | 273.3 | 281.7 |
| 700 | 220.0 | 283.3 | 261.5 | 242.0 | 264.5 | 273.1 |
| 650 | 189.6 | 197.0 | 259.5 | 239.1 | 255.6 | 268.1 |
| 600 | 151.9 | 143.4 | 256.2 | 229.8 | 246.7 | 263.1 |
| 550 | 116.2 | 125.9 | 245.6 | 220.2 | 237.8 | 258.0 |
| 500 | 130.3 | 117.4 | 234.9 | 210.6 | 228.9 | 250.7 |
| 450 | 136.2 | 146.7 | 244.2 | 202.9 | 219.7 | 236.0 |
| 400 | | 181.2 | 265.5 | 198.8 | 210.5 | 221.3 |
| 350 | | | 404.1 | 205.3 | 220.2 | 234.8 |
| 300 | | | | 275.4 | 343.9 | 287.3 |
| LONG | -50.29 | -49.66 | -44.55 | -42.28 | -39.61 | -36.25 |
| LAT | -61.41 | -62.18 | -67.55 | -69.29 | -70.98 | -72.73 |
| QUAL | 23 | 23 | 21 | 21 | 21 | 21 |

PASS 4844 AT COLEGE, 63 919

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 51721 | 51756 | 51831 | 51906 | 51941 | 52016 | 52051 | 52126 |
| 1000 | 0.115 | 0.142 | 0.088 | 0.060 | 0.051 | 0.048 | 0.046 | 0.042 |
| 950 | 0.130 | 0.161 | 0.098 | 0.069 | 0.059 | 0.055 | 0.055 | 0.051 |
| 900 | 0.145 | 0.185 | 0.113 | 0.079 | 0.069 | 0.064 | 0.065 | 0.060 |
| 850 | 0.162 | 0.209 | 0.129 | 0.097 | 0.081 | 0.076 | 0.079 | 0.075 |
| 800 | 0.183 | 0.237 | 0.151 | 0.122 | 0.098 | 0.098 | 0.099 | 0.102 |
| 750 | 0.208 | 0.273 | 0.182 | 0.155 | 0.120 | 0.128 | 0.124 | 0.138 |
| 700 | 0.241 | 0.316 | 0.220 | 0.197 | 0.147 | 0.166 | 0.156 | 0.184 |
| 650 | 0.294 | 0.385 | 0.274 | 0.250 | 0.178 | 0.213 | 0.193 | 0.247 |
| 600 | 0.368 | 0.483 | 0.340 | 0.315 | 0.224 | 0.279 | 0.269 | 0.324 |
| 550 | 0.441 | 0.547 | 0.428 | 0.392 | 0.307 | 0.358 | 0.365 | 0.430 |
| 500 | 0.545 | 0.689 | 0.536 | 0.521 | 0.414 | 0.485 | 0.511 | 0.606 |
| 450 | 0.675 | 0.869 | 0.723 | 0.689 | 0.566 | 0.659 | 0.722 | 0.837 |
| 400 | 0.866 | 1.102 | 0.949 | 0.913 | 0.774 | 0.895 | 1.051 | 1.191 |
| 350 | 1.113 | 1.395 | 1.264 | 1.203 | 1.061 | 1.211 | 1.538 | 1.721 |
| 300 | 1.416 | | 1.620 | 1.545 | 1.459 | 1.598 | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 434.7 | 388.3 | 394.9 | 394.4 | 320.4 | 339.4 | 283.3 | 304.1 |
| 900 | 440.8 | 383.7 | 357.7 | 283.8 | 294.5 | 292.0 | 258.5 | 249.7 |
| 850 | 420.6 | 373.0 | 333.4 | 270.9 | 271.9 | 249.6 | 237.4 | 214.3 |
| 800 | 384.8 | 360.1 | 306.9 | 258.0 | 263.5 | 238.8 | 229.9 | 205.9 |
| 750 | 349.1 | 343.1 | 276.0 | 245.1 | 255.2 | 228.0 | 222.5 | 197.4 |
| 700 | 316.9 | 326.1 | 247.2 | 232.2 | 246.8 | 217.2 | 215.1 | 188.9 |
| 650 | 290.9 | 309.1 | 236.6 | 223.0 | 238.5 | 206.3 | 207.6 | 182.4 |
| 600 | 264.9 | 285.2 | 225.9 | 214.2 | 222.1 | 194.9 | 184.1 | 176.5 |
| 550 | 245.9 | 245.7 | 213.9 | 205.0 | 187.8 | 183.6 | 160.5 | 168.6 |
| 500 | 234.3 | 217.6 | 199.4 | 190.2 | 163.9 | 173.9 | 150.2 | 156.9 |
| 450 | 221.8 | 214.2 | 188.0 | 180.4 | 162.9 | 165.6 | 140.4 | 146.9 |
| 400 | 206.2 | 222.2 | 181.9 | 180.4 | 160.6 | 164.9 | 133.4 | 140.7 |
| 350 | 211.6 | 240.9 | 191.9 | 194.9 | 163.2 | 176.2 | 134.9 | 135.9 |
| 300 | 230.6 | | 219.5 | 219.5 | 174.2 | 192.1 | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -157.55 | -146.37 | -137.59 | -129.52 | -123.49 | -118.29 | -114.07 | -110.72 |
| LAT | 80.15 | 79.63 | 78.64 | 77.53 | 76.14 | 74.66 | 73.08 | 71.40 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 4844 AT COLLEGE, 03 919

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 52202 | 52237 | 52312 | 52347 | 52422 | 52457 | 52532 | 52607 |
| 1000 | 0.034 | 0.054 | 0.132 | 0.119 | 0.079 | 0.060 | 0.036 | 0.027 |
| 950 | 0.042 | 0.062 | 0.146 | 0.134 | 0.091 | 0.072 | 0.046 | 0.033 |
| 900 | 0.051 | 0.071 | 0.160 | 0.147 | 0.104 | 0.085 | 0.055 | 0.041 |
| 850 | 0.062 | 0.084 | 0.179 | 0.164 | 0.120 | 0.099 | 0.065 | 0.049 |
| 800 | 0.077 | 0.104 | 0.207 | 0.184 | 0.140 | 0.114 | 0.076 | 0.056 |
| 750 | 0.096 | 0.134 | 0.252 | 0.207 | 0.167 | 0.132 | 0.089 | 0.069 |
| 700 | 0.122 | 0.177 | 0.311 | 0.233 | 0.199 | 0.154 | 0.107 | 0.091 |
| 650 | 0.176 | 0.242 | 0.384 | 0.269 | 0.243 | 0.185 | 0.142 | 0.119 |
| 600 | 0.256 | 0.331 | 0.470 | 0.318 | 0.297 | 0.231 | 0.187 | 0.155 |
| 550 | 0.362 | 0.449 | 0.570 | 0.396 | 0.360 | 0.303 | 0.252 | 0.214 |
| 500 | 0.515 | 0.599 | 0.744 | 0.519 | 0.465 | 0.402 | 0.335 | 0.279 |
| 450 | 0.724 | 0.814 | 0.993 | 0.697 | 0.602 | 0.531 | 0.452 | 0.387 |
| 400 | 1.034 | 1.116 | 1.319 | 0.921 | 0.796 | 0.692 | 0.609 | 0.522 |
| 350 | 1.474 | 1.522 | 1.731 | 1.211 | 1.048 | 0.894 | 0.810 | 0.674 |
| 300 | 2.075 | | | 1.576 | | 1.136 | 1.037 | 0.839 |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 249.9 | 377.2 | 520.1 | 477.2 | 358.3 | 281.2 | 245.0 | 277.5 |
| 900 | 242.8 | 322.1 | 465.2 | 463.7 | 346.5 | 312.4 | 281.8 | 301.7 |
| 850 | 236.6 | 272.5 | 394.3 | 452.6 | 330.9 | 340.4 | 294.0 | 279.7 |
| 800 | 222.0 | 231.0 | 338.8 | 435.2 | 313.5 | 347.9 | 280.4 | 257.7 |
| 750 | 207.4 | 197.1 | 303.4 | 408.9 | 289.7 | 327.3 | 266.8 | 240.5 |
| 700 | 187.2 | 174.3 | 267.9 | 371.7 | 265.9 | 292.3 | 247.9 | 226.5 |
| 650 | 142.5 | 167.7 | 245.9 | 325.3 | 254.8 | 255.2 | 214.5 | 212.5 |
| 600 | 140.0 | 167.5 | 235.0 | 275.3 | 243.8 | 216.4 | 181.1 | 198.5 |
| 550 | 145.7 | 168.3 | 224.1 | 214.5 | 232.9 | 180.2 | 176.3 | 180.6 |
| 500 | 146.5 | 169.7 | 197.2 | 185.5 | 212.2 | 182.3 | 174.3 | 160.3 |
| 450 | 144.3 | 163.0 | 176.9 | 177.9 | 189.4 | 186.5 | 172.4 | 165.6 |
| 400 | 141.0 | 161.7 | 180.7 | 180.8 | 183.9 | 193.0 | 174.6 | 184.9 |
| 350 | 143.1 | 184.4 | 186.0 | 188.7 | 184.5 | 202.0 | 192.5 | 212.3 |
| 300 | 161.4 | | | 186.3 | | 216.0 | 220.5 | 245.2 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -107.64 | -105.40 | -103.33 | -101.62 | -100.13 | -98.79 | -97.68 | -96.64 |
| LAT | 69.64 | 67.85 | 66.05 | 64.22 | 62.37 | 60.50 | 58.61 | 56.71 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 4844 AT GFORKS, 63 919

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 52534 | 52608 | 52719 | 52754 | 52829 | 53050 | 53125 | 53142 |
| 1000 | 0.031 | 0.023 | 0.026 | 0.015 | 0.008 | 0.026 | 0.041 | 0.046 |
| 950 | 0.039 | 0.029 | 0.038 | 0.020 | 0.011 | 0.030 | 0.048 | 0.052 |
| 900 | 0.048 | 0.035 | 0.047 | 0.022 | 0.014 | 0.033 | 0.050 | 0.055 |
| 850 | 0.058 | 0.042 | 0.057 | 0.028 | 0.018 | 0.036 | 0.053 | 0.059 |
| 800 | 0.071 | 0.049 | 0.069 | 0.035 | 0.024 | 0.040 | 0.055 | 0.063 |
| 750 | 0.086 | 0.058 | 0.082 | 0.043 | 0.031 | 0.045 | 0.059 | 0.069 |
| 700 | 0.105 | 0.076 | 0.101 | 0.052 | 0.040 | 0.053 | 0.067 | 0.078 |
| 650 | 0.136 | 0.100 | 0.130 | 0.064 | 0.051 | 0.063 | 0.084 | 0.091 |
| 600 | 0.181 | 0.133 | 0.165 | 0.092 | 0.063 | 0.077 | 0.103 | 0.115 |
| 550 | 0.246 | 0.177 | 0.220 | 0.130 | 0.090 | 0.102 | 0.125 | 0.150 |
| 500 | 0.335 | 0.250 | 0.297 | 0.186 | 0.140 | 0.143 | 0.149 | 0.202 |
| 450 | 0.459 | 0.344 | 0.406 | 0.266 | 0.209 | 0.213 | | 0.283 |
| 400 | 0.621 | 0.472 | 0.568 | 0.381 | 0.310 | 0.324 | | 0.419 |
| 350 | 0.843 | 0.629 | 0.759 | 0.533 | 0.449 | | | |
| 300 | 1.045 | 0.795 | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | | 191.7 | 393.4 | | | | 776.5 |
| 900 | 249.6 | 272.3 | 236.4 | 333.7 | 194.9 | 561.2 | 1038.1 | 800.2 |
| 850 | 259.1 | 265.7 | 256.0 | 248.3 | 180.9 | 533.5 | 974.8 | 741.3 |
| 800 | 255.8 | 259.2 | 250.2 | 219.5 | 181.6 | 419.4 | 823.3 | 614.7 |
| 750 | 242.4 | 248.2 | 244.4 | 216.7 | 182.5 | 367.8 | 671.9 | 496.8 |
| 700 | 222.4 | 218.8 | 232.8 | 213.9 | 183.5 | 328.1 | 496.0 | 393.8 |
| 650 | 192.3 | 189.5 | 214.9 | 204.8 | 184.4 | 286.5 | 296.8 | 296.7 |
| 600 | 172.7 | 173.6 | 197.1 | 167.5 | 185.3 | 245.2 | 255.2 | 237.4 |
| 550 | 162.3 | 161.1 | 182.4 | 142.4 | 171.2 | 185.3 | 273.9 | 185.5 |
| 500 | 161.2 | 160.9 | 169.4 | 142.8 | 140.0 | 144.4 | 292.6 | 163.3 |
| 450 | 168.7 | 160.8 | 164.4 | 142.2 | 125.6 | 125.5 | | 133.0 |
| 400 | 178.6 | 177.8 | 170.0 | 143.4 | 132.9 | 118.2 | | 92.3 |
| 350 | 192.6 | 196.9 | 188.9 | 154.4 | 139.2 | | | |
| 300 | 202.7 | 229.3 | | | | | | |
| LONG | -97.62 | -96.62 | -94.92 | -94.19 | -93.55 | -91.45 | -91.04 | -90.84 |
| LAT | 58.50 | 56.65 | 52.76 | 50.84 | 48.91 | 41.06 | 39.10 | 38.15 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 23 | 13 | 23 |

PASS 4844 AT GFORKS, 63 919

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 53218 | 53253 | 53328 | 53403 | 53438 | 53513 | 53548 |
| 1000 | 0.045 | 0.049 | 0.058 | 0.061 | 0.069 | 0.077 | 0.083 |
| 950 | 0.050 | 0.054 | 0.063 | 0.068 | 0.075 | 0.086 | 0.092 |
| 900 | 0.054 | 0.057 | 0.067 | 0.072 | 0.079 | 0.090 | 0.097 |
| 850 | 0.057 | 0.060 | 0.072 | 0.076 | 0.084 | 0.095 | 0.099 |
| 800 | 0.059 | 0.065 | 0.077 | 0.082 | 0.090 | 0.100 | 0.103 |
| 750 | 0.067 | 0.072 | 0.083 | 0.089 | 0.097 | 0.108 | 0.110 |
| 700 | 0.075 | 0.080 | 0.093 | 0.099 | 0.106 | 0.118 | 0.119 |
| 650 | 0.088 | 0.092 | 0.106 | 0.111 | 0.119 | 0.131 | 0.129 |
| 600 | 0.115 | 0.109 | 0.129 | 0.127 | 0.140 | 0.153 | 0.151 |
| 550 | 0.154 | 0.151 | 0.173 | 0.172 | 0.180 | 0.195 | 0.186 |
| 500 | 0.206 | 0.238 | 0.256 | 0.274 | 0.255 | 0.271 | 0.244 |
| 450 | 0.340 | 0.358 | 0.410 | 0.408 | | 0.419 | 0.402 |
| 400 | 0.539 | 0.531 | 0.667 | 0.652 | | | |
| 350 | 0.823 | 0.851 | 0.934 | 0.898 | | | |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | | 819.0 | | | 1032.4 | | |
| 900 | 1152.5 | 874.2 | 757.7 | 866.0 | 878.8 | 1110.6 | 1914.2 |
| 850 | 971.3 | 733.9 | 754.4 | 771.9 | 752.4 | 950.3 | 1876.1 |
| 800 | 772.9 | 630.9 | 650.8 | 652.6 | 662.8 | 772.5 | 1129.6 |
| 750 | 415.4 | 531.9 | 513.1 | 523.9 | 578.3 | 605.6 | 798.3 |
| 700 | 352.0 | 434.2 | 430.9 | 446.0 | 488.7 | 515.5 | 620.5 |
| 650 | 274.5 | 345.9 | 348.7 | 379.5 | 397.0 | 425.4 | 478.4 |
| 600 | 178.0 | 246.4 | 240.2 | 311.7 | 288.1 | 302.7 | 335.9 |
| 550 | 161.0 | 138.4 | 154.4 | 141.7 | 167.2 | 181.7 | 214.6 |
| 500 | 143.9 | 117.5 | 120.5 | 118.2 | 98.3 | 135.4 | 147.5 |
| 450 | 108.4 | 119.1 | 104.6 | 115.5 | | 108.5 | 105.6 |
| 400 | 118.3 | 119.3 | 126.8 | 130.7 | | | |
| 350 | 151.7 | 131.7 | 176.8 | 189.5 | | | |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -90.46 | -90.11 | -89.79 | -89.48 | -89.19 | -88.91 | -88.66 |
| LAT | 36.13 | 34.16 | 32.20 | 30.23 | 28.25 | 26.28 | 24.31 |
| QUAL | 23 | 23 | 23 | 13 | 23 | 23 | 23 |

PASS 4844 AT QUITOE, o3 919

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 54232 | 54308 | 54343 | 54400 | 54435 | 54510 | 54546 | 54720 |
| 1000 | 0.088 | 0.101 | 0.090 | 0.097 | 0.098 | 0.112 | 0.113 | 0.109 |
| 950 | 0.094 | 0.111 | 0.100 | 0.105 | 0.110 | 0.125 | 0.128 | 0.123 |
| 900 | 0.100 | 0.118 | 0.109 | 0.115 | 0.125 | 0.138 | 0.140 | 0.137 |
| 850 | 0.104 | 0.126 | 0.119 | 0.128 | 0.140 | 0.150 | 0.152 | 0.151 |
| 800 | 0.110 | 0.135 | 0.129 | 0.143 | 0.154 | 0.163 | 0.167 | 0.165 |
| 750 | 0.119 | 0.150 | 0.141 | 0.158 | 0.166 | 0.182 | 0.191 | 0.184 |
| 700 | 0.129 | 0.167 | 0.154 | 0.171 | 0.181 | 0.205 | 0.222 | 0.205 |
| 650 | 0.142 | 0.184 | 0.170 | 0.190 | 0.220 | 0.241 | 0.271 | 0.233 |
| 600 | 0.164 | 0.210 | 0.202 | 0.236 | 0.290 | 0.314 | 0.356 | 0.356 |
| 550 | 0.199 | 0.287 | 0.315 | 0.407 | 0.423 | 0.468 | 0.551 | 0.507 |
| 500 | 0.266 | 0.482 | 0.526 | 0.585 | 0.858 | 0.871 | 0.918 | 0.783 |
| 450 | 0.540 | 0.893 | 1.044 | 1.291 | 1.428 | 1.492 | 1.385 | 1.333 |
| 400 | 1.152 | 1.837 | 1.924 | 2.214 | 2.391 | 2.452 | 2.319 | 2.146 |
| 350 | 2.382 | 3.264 | 3.375 | 3.581 | 3.704 | 3.624 | 3.655 | 3.327 |
| 300 | 4.263 | 5.000 | 4.872 | 4.809 | | | | 5.125 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | | 778.0 | 559.6 | 570.5 | 407.3 | | | |
| 900 | 1014.4 | 746.3 | 578.6 | 547.1 | 418.5 | 544.9 | 586.8 | 484.4 |
| 850 | 903.8 | 676.4 | 583.1 | 523.7 | 480.8 | 552.7 | 536.4 | 518.4 |
| 800 | 778.4 | 605.5 | 584.8 | 516.7 | 621.3 | 502.0 | 457.6 | 489.6 |
| 750 | 682.7 | 510.6 | 578.6 | 549.2 | 547.1 | 436.5 | 387.2 | 425.0 |
| 700 | 587.1 | 464.9 | 529.1 | 513.4 | 438.2 | 371.1 | 316.7 | 360.5 |
| 650 | 491.4 | 442.8 | 408.0 | 395.6 | 228.2 | 287.7 | 237.7 | 293.7 |
| 600 | 364.8 | 309.4 | 193.3 | 129.2 | 153.5 | 162.0 | 159.6 | 160.1 |
| 550 | 226.4 | 116.3 | 107.8 | 102.6 | 118.8 | 107.3 | 107.2 | 129.1 |
| 500 | 132.0 | 90.1 | 89.6 | 96.1 | 87.9 | 83.4 | 109.4 | 103.6 |
| 450 | 68.9 | 48.9 | 70.9 | 88.0 | 91.9 | 97.4 | 111.8 | 99.6 |
| 400 | 63.6 | 82.1 | 86.6 | 95.3 | 105.5 | 112.1 | 95.3 | 112.2 |
| 350 | 74.5 | 94.7 | 101.7 | 131.4 | 145.0 | 163.0 | 149.7 | 113.4 |
| 300 | 111.4 | 187.5 | 219.6 | 252.3 | | | | 118.4 |
| LONG | -86.27 | -86.08 | -85.90 | -85.81 | -85.62 | -85.43 | -85.23 | -84.70 |
| LAT | 1.48 | -0.55 | -2.53 | -3.49 | -5.47 | -7.45 | -9.49 | -14.80 |
| QUAL | 33 | 33 | 33 | 23 | 23 | 23 | 23 | 23 |

PASS 4844 AT QUITOE, 63 919

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 54755 | 54830 | 55051 |
| 1000 | 0.106 | 0.121 | 0.095 |
| 950 | 0.117 | 0.131 | 0.101 |
| 900 | 0.131 | 0.143 | 0.106 |
| 850 | 0.147 | 0.157 | 0.110 |
| 800 | 0.163 | 0.172 | 0.116 |
| 750 | 0.180 | 0.192 | 0.123 |
| 700 | 0.202 | 0.219 | 0.132 |
| 650 | 0.228 | 0.270 | 0.148 |
| 600 | 0.285 | 0.364 | 0.176 |
| 550 | 0.416 | 0.490 | 0.237 |
| 500 | 0.605 | 0.698 | 0.348 |
| 450 | 1.076 | 1.111 | 0.582 |
| 400 | 1.819 | 1.871 | 1.165 |
| 350 | 2.999 | 3.206 | 2.209 |
| 300 | 5.013 | | 4.482 |

| HEIGHT | SCALE HEIGHT, KM | | |
|---|---|---|---|
| 950 | 450.9 | 583.3 | |
| 900 | 456.7 | 567.0 | 1390.2 |
| 850 | 481.1 | 546.4 | 1163.8 |
| 800 | 469.6 | 482.1 | 920.9 |
| 750 | 429.1 | 403.2 | 733.0 |
| 700 | 377.0 | 321.9 | 595.3 |
| 650 | 324.9 | 249.4 | 398.6 |
| 600 | 240.7 | 185.6 | 214.5 |
| 550 | 132.1 | 156.3 | 148.0 |
| 500 | 112.4 | 129.5 | 119.9 |
| 450 | 91.8 | 104.4 | 82.7 |
| 400 | 99.0 | 92.8 | 76.0 |
| 350 | 100.4 | 89.9 | 72.5 |
| 300 | 95.0 | | 75.5 |

| | | | |
|---|---|---|---|
| LONG | -84.49 | -84.27 | -83.30 |
| LAT | -16.77 | -18.74 | -26.67 |
| QUAL | 23 | 23 | 23 |

PASS 4844 AT AGASTA, 63 919

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 55403 | 55438 | 55549 | 55606 | 55801 | 55836 | 55911 |
| 1000 | 0.105 | 0.114 | 0.110 | 0.102 | 0.095 | 0.082 | 0.074 |
| 950 | 0.111 | 0.121 | 0.117 | 0.109 | 0.101 | 0.088 | 0.080 |
| 900 | 0.115 | 0.128 | 0.123 | 0.115 | 0.106 | 0.094 | 0.087 |
| 850 | 0.122 | 0.134 | 0.133 | 0.123 | 0.113 | 0.100 | 0.094 |
| 800 | 0.132 | 0.142 | 0.146 | 0.132 | 0.123 | 0.109 | 0.102 |
| 750 | 0.145 | 0.154 | 0.164 | 0.146 | 0.138 | 0.121 | 0.113 |
| 700 | 0.172 | 0.174 | 0.191 | 0.172 | 0.159 | 0.137 | 0.130 |
| 650 | 0.236 | 0.251 | 0.235 | 0.215 | 0.195 | 0.168 | 0.152 |
| 600 | 0.329 | 0.379 | 0.312 | 0.282 | 0.260 | 0.226 | 0.199 |
| 550 | 0.458 | 0.482 | 0.446 | 0.457 | 0.385 | 0.324 | 0.301 |
| 500 | 0.708 | 0.707 | 0.665 | 0.700 | 0.581 | 0.526 | 0.487 |
| 450 | 1.054 | 1.049 | 0.999 | 1.025 | 0.937 | 0.861 | 0.803 |
| 400 | 1.435 | 1.373 | 1.402 | 1.435 | 1.392 | 1.303 | 1.235 |
| 350 | | | | | | 1.730 | |
| 300 | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 465.1 | | 1203.4 | 811.2 | 905.3 | 739.5 | 629.8 |
| 900 | 682.3 | 942.1 | 791.8 | 761.6 | 840.7 | 757.9 | 619.0 |
| 850 | 856.9 | 929.8 | 604.6 | 672.5 | 690.1 | 652.1 | 593.3 |
| 800 | 640.2 | 729.1 | 488.6 | 583.5 | 536.2 | 531.1 | 514.5 |
| 750 | 448.4 | 550.4 | 388.2 | 466.2 | 430.2 | 447.8 | 435.6 |
| 700 | 301.4 | 307.5 | 297.2 | 291.0 | 324.2 | 364.6 | 356.5 |
| 650 | 225.3 | 162.7 | 217.0 | 210.0 | 231.6 | 233.5 | 275.8 |
| 600 | 158.3 | 151.0 | 160.5 | 155.3 | 160.7 | 156.2 | 154.8 |
| 550 | 137.3 | 155.5 | 135.1 | 114.8 | 124.7 | 126.5 | 112.5 |
| 500 | 125.5 | 141.5 | 125.6 | 125.3 | 115.6 | 103.4 | 105.5 |
| 450 | 145.7 | 156.5 | 137.4 | 140.1 | 115.9 | 111.6 | 107.1 |
| 400 | 174.1 | 305.9 | 193.2 | 202.2 | 144.3 | 142.0 | 149.5 |
| 350 | | | | | | 324.6 | |
| 300 | | | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -81.56 | -81.18 | -80.30 | -80.07 | -78.21 | -77.49 | -76.73 |
| LAT | -37.40 | -39.34 | -43.27 | -44.21 | -50.52 | -52.43 | -54.32 |
| QUAL | 23 | 21 | 21 | 21 | 21 | 21 | 21 |

PASS 4844 AT AGASTA, 63 919

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 55946 | 60021 | 60056 | 60131 |
| 1000 | 0.067 | 0.057 | 0.054 | 0.039 |
| 950 | 0.072 | 0.062 | 0.059 | 0.044 |
| 900 | 0.079 | 0.068 | 0.062 | 0.048 |
| 850 | 0.086 | 0.074 | 0.067 | 0.053 |
| 800 | 0.095 | 0.082 | 0.072 | 0.060 |
| 750 | 0.106 | 0.092 | 0.078 | 0.067 |
| 700 | 0.123 | 0.108 | 0.093 | 0.079 |
| 650 | 0.150 | 0.133 | 0.114 | 0.097 |
| 600 | 0.202 | 0.178 | 0.147 | 0.126 |
| 550 | 0.302 | 0.267 | 0.222 | 0.187 |
| 500 | 0.472 | 0.434 | 0.353 | 0.299 |
| 450 | 0.749 | 0.706 | 0.571 | 0.473 |
| 400 | 1.191 | 1.119 | 0.933 | 0.774 |
| 350 | | 1.520 | 1.306 | |
| 300 | | | | |
| **HEIGHT** | SCALE HEIGHT, KM | | | |
| 950 | 597.2 | 557.7 | 776.4 | 517.6 |
| 900 | 567.6 | 539.9 | 730.4 | 492.8 |
| 850 | 532.4 | 505.9 | 650.7 | 452.4 |
| 800 | 463.9 | 446.2 | 571.0 | 409.8 |
| 750 | 365.9 | 382.0 | 491.2 | 367.2 |
| 700 | 313.2 | 294.2 | 360.4 | 310.8 |
| 650 | 225.2 | 216.0 | 224.9 | 245.2 |
| 600 | 151.4 | 152.4 | 161.7 | 165.6 |
| 550 | 128.0 | 116.4 | 124.6 | 123.0 |
| 500 | 115.5 | 107.1 | 108.5 | 109.4 |
| 450 | 107.0 | 106.2 | 104.8 | 107.3 |
| 400 | 128.4 | 127.9 | 122.9 | 122.8 |
| 350 | | 330.8 | 247.3 | |
| 300 | | | | |
| LONG | -75.67 | -74.89 | -73.84 | -72.56 |
| LAT | -56.21 | -58.09 | -59.97 | -61.81 |
| QUAL | 21 | 21 | 21 | 23 |

PASS 4844 AT SULANT, 63 919

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 55459 | 55514 | 55549 | 55622 | 55854 | 55929 | 60004 | 60039 |
| 1000 | 0.123 | 0.119 | 0.116 | 0.118 | 0.098 | 0.086 | 0.071 | 0.074 |
| 950 | 0.129 | 0.125 | 0.122 | 0.125 | 0.103 | 0.091 | 0.075 | 0.078 |
| 900 | 0.134 | 0.131 | 0.131 | 0.133 | 0.108 | 0.096 | 0.080 | 0.082 |
| 850 | 0.141 | 0.140 | 0.141 | 0.142 | 0.116 | 0.104 | 0.087 | 0.089 |
| 800 | 0.150 | 0.151 | 0.153 | 0.154 | 0.126 | 0.114 | 0.096 | 0.099 |
| 750 | 0.163 | 0.165 | 0.171 | 0.177 | 0.147 | 0.129 | 0.109 | 0.119 |
| 700 | 0.182 | 0.185 | 0.198 | 0.210 | 0.176 | 0.150 | 0.128 | 0.145 |
| 650 | 0.216 | 0.228 | 0.246 | 0.262 | 0.223 | 0.174 | 0.165 | 0.180 |
| 600 | 0.292 | 0.300 | 0.330 | 0.340 | 0.300 | 0.251 | 0.224 | 0.242 |
| 550 | 0.427 | 0.449 | 0.469 | 0.491 | 0.431 | 0.382 | 0.319 | 0.344 |
| 500 | 0.644 | 0.688 | 0.731 | 0.769 | 0.692 | 0.672 | 0.515 | 0.566 |
| 450 | 0.950 | 0.974 | 1.072 | 1.137 | 1.033 | 0.923 | 0.807 | 0.874 |
| 400 | 1.284 | 1.327 | | 1.539 | 1.475 | 1.384 | 1.220 | 1.257 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 1650.7 | 1080.3 | 862.6 | 869.9 | 973.4 | 893.7 | 789.7 | 909.6 |
| 900 | 1058.9 | 814.2 | 717.5 | 806.7 | 843.8 | 795.7 | 694.9 | 735.2 |
| 850 | 895.7 | 718.1 | 607.9 | 667.1 | 658.3 | 600.6 | 569.1 | 564.5 |
| 800 | 713.0 | 621.9 | 521.3 | 472.0 | 487.5 | 464.8 | 441.3 | 427.9 |
| 750 | 568.5 | 525.8 | 410.8 | 385.0 | 389.7 | 400.9 | 361.3 | 361.6 |
| 700 | 398.5 | 413.6 | 301.8 | 297.9 | 291.8 | 337.0 | 273.5 | 295.4 |
| 650 | 231.2 | 220.2 | 205.7 | 232.6 | 217.8 | 273.1 | 178.3 | 229.2 |
| 600 | 144.4 | 165.4 | 165.4 | 182.8 | 172.7 | 175.5 | 157.5 | 175.9 |
| 550 | 126.6 | 117.4 | 136.6 | 132.2 | 132.6 | 118.2 | 130.6 | 127.9 |
| 500 | 128.3 | 131.8 | 123.9 | 120.5 | 116.7 | 116.4 | 107.1 | 108.8 |
| 450 | 151.8 | 154.9 | 144.3 | 138.6 | 133.2 | 115.1 | 117.2 | 126.6 |
| 400 | 222.6 | 211.9 | | 287.5 | 178.7 | 142.9 | 143.2 | 180.7 |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -81.17 | -80.75 | -80.30 | -79.83 | -77.12 | -76.28 | -75.40 | -74.35 |
| LAT | -39.59 | -41.33 | -43.27 | -45.09 | -53.40 | -55.30 | -57.18 | -59.06 |
| QUAL | 31 | 21 | 23 | 21 | 32 | 21 | 21 | 21 |

PASS 4844 AT SULANT, 63 919

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 60114 | 60149 | 60207 | 60445 | 60502 | 60613 | 60648 |
| 1000 | 0.063 | 0.047 | 0.045 | 0.044 | 0.029 | 0.022 | 0.046 |
| 950 | 0.067 | 0.051 | 0.048 | 0.052 | 0.037 | 0.029 | 0.054 |
| 900 | 0.071 | 0.053 | 0.051 | 0.062 | 0.045 | 0.036 | 0.064 |
| 850 | 0.078 | 0.061 | 0.055 | 0.075 | 0.056 | 0.045 | 0.075 |
| 800 | 0.086 | 0.072 | 0.060 | 0.093 | 0.070 | 0.058 | 0.090 |
| 750 | 0.102 | 0.083 | 0.073 | 0.116 | 0.089 | 0.073 | 0.108 |
| 700 | 0.122 | 0.099 | 0.091 | 0.145 | 0.110 | 0.091 | 0.132 |
| 650 | 0.148 | 0.126 | 0.114 | 0.187 | 0.145 | 0.115 | 0.168 |
| 600 | 0.201 | 0.170 | 0.142 | 0.239 | 0.192 | 0.154 | 0.211 |
| 550 | 0.296 | 0.245 | 0.228 | 0.313 | 0.249 | 0.201 | 0.268 |
| 500 | 0.469 | 0.389 | 0.354 | 0.417 | 0.336 | 0.259 | 0.345 |
| 450 | 0.735 | 0.589 | 0.534 | 0.571 | 0.448 | 0.346 | 0.444 |
| 400 | 1.057 | | 0.796 | 0.785 | 0.617 | 0.459 | 0.589 |
| 350 | | | | 1.081 | 0.839 | 0.645 | 0.778 |
| 300 | | | | | 1.134 | 0.877 | 1.022 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 780.8 | 799.8 | 731.4 | 277.9 | 225.4 | | 288.4 |
| 900 | 636.0 | 649.3 | 638.2 | 263.8 | 225.1 | 206.2 | 286.5 |
| 850 | 515.6 | 491.7 | 542.7 | 250.7 | 223.5 | 210.0 | 279.5 |
| 800 | 395.3 | 346.6 | 447.2 | 240.1 | 218.3 | 209.9 | 268.3 |
| 750 | 339.3 | 316.9 | 348.0 | 229.4 | 213.2 | 209.9 | 257.1 |
| 700 | 288.8 | 250.2 | 248.4 | 218.8 | 208.0 | 209.8 | 245.5 |
| 650 | 238.3 | 188.3 | 204.2 | 208.1 | 200.5 | 207.3 | 233.4 |
| 600 | 179.4 | 154.4 | 170.9 | 197.4 | 192.3 | 201.1 | 221.3 |
| 550 | 120.3 | 121.9 | 130.6 | 185.0 | 184.1 | 195.0 | 210.1 |
| 500 | 114.6 | 121.6 | 118.3 | 171.7 | 174.8 | 187.7 | 200.1 |
| 450 | 128.1 | 144.3 | 127.6 | 163.7 | 166.3 | 175.9 | 191.1 |
| 400 | 167.3 | | 154.0 | 158.9 | 165.9 | 166.4 | 185.9 |
| 350 | | | | 160.5 | 167.1 | 167.4 | 186.5 |
| 300 | | | | | 173.1 | 184.1 | 209.0 |
| LONG | -73.19 | -71.88 | -71.14 | -61.14 | -59.66 | -50.83 | -45.10 |
| LAT | -60.92 | -62.76 | -63.70 | -71.67 | -72.49 | -75.64 | -77.04 |
| QUAL | 21 | 21 | 23 | 23 | 23 | 33 | 31 |

PASS 4898 AT RESLUT, 63 923

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 41414 | 41542 | 41559 | 41617 | 41634 | 41652 |
| 1000 | 0.060 | 0.081 | 0.083 | 0.070 | 0.059 | 0.053 |
| 950 | 0.067 | 0.093 | 0.093 | 0.080 | 0.067 | 0.062 |
| 900 | 0.075 | 0.106 | 0.103 | 0.089 | 0.073 | 0.069 |
| 850 | 0.084 | 0.121 | 0.115 | 0.101 | 0.086 | 0.078 |
| 800 | 0.097 | 0.140 | 0.133 | 0.118 | 0.106 | 0.089 |
| 750 | 0.111 | 0.163 | 0.155 | 0.140 | 0.131 | 0.103 |
| 700 | 0.133 | 0.190 | 0.181 | 0.166 | 0.154 | 0.130 |
| 650 | 0.170 | 0.227 | 0.214 | 0.197 | 0.178 | 0.161 |
| 600 | 0.217 | 0.270 | 0.256 | 0.240 | 0.208 | 0.191 |
| 550 | 0.272 | 0.321 | 0.304 | 0.291 | 0.258 | 0.232 |
| 500 | 0.336 | 0.382 | 0.359 | 0.349 | 0.320 | 0.283 |
| 450 | 0.446 | 0.461 | 0.431 | 0.418 | 0.393 | 0.342 |
| 400 | 0.586 | 0.549 | 0.516 | 0.502 | 0.475 | 0.426 |
| 350 | 0.773 | 0.621 | | 0.584 | | 0.503 |
| 300 | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | |
|---|---|---|---|---|---|---|
| 950 | 484.9 | 383.6 | 494.1 | 452.5 | 596.6 | 419.1 |
| 900 | 415.3 | 366.6 | 431.6 | 396.5 | 410.8 | 412.7 |
| 850 | 381.8 | 352.5 | 387.0 | 354.6 | 361.2 | 378.1 |
| 800 | 348.3 | 337.2 | 367.3 | 339.0 | 325.9 | 343.5 |
| 750 | 314.9 | 321.3 | 347.5 | 323.4 | 293.4 | 309.2 |
| 700 | 287.2 | 305.4 | 327.7 | 307.8 | 290.9 | 275.8 |
| 650 | 269.9 | 300.1 | 315.3 | 293.8 | 288.3 | 257.0 |
| 600 | 252.5 | 296.3 | 309.1 | 290.4 | 283.8 | 261.6 |
| 550 | 235.2 | 292.4 | 302.9 | 286.9 | 271.4 | 259.7 |
| 500 | 217.9 | 295.7 | 296.7 | 283.5 | 258.9 | 257.8 |
| 450 | 202.4 | 313.6 | 281.1 | 292.3 | 260.9 | 255.8 |
| 400 | 187.4 | 343.1 | 304.3 | 312.3 | 289.0 | 282.6 |
| 350 | 178.2 | 572.3 | | 453.5 | | 461.8 |
| 300 | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| LONG | -173.91 | -149.61 | -144.00 | -139.09 | -134.50 | -129.85 |
| LAT | 79.99 | 80.16 | 80.02 | 79.58 | 79.14 | 78.68 |
| QUAL | 33 | 31 | 31 | 31 | 31 | 31 |

PASS 4898 AT RESLUT, 63 923

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 41709 | 41727 | 41820 | 41930 | 41948 |
| 1000 | 0.063 | 0.056 | 0.161 | 0.174 | 0.154 |
| 950 | 0.072 | 0.063 | 0.185 | 0.194 | 0.173 |
| 900 | 0.081 | 0.070 | 0.210 | 0.216 | 0.189 |
| 850 | 0.092 | 0.080 | 0.239 | 0.244 | 0.210 |
| 800 | 0.104 | 0.093 | 0.274 | 0.277 | 0.238 |
| 750 | 0.119 | 0.109 | 0.317 | 0.318 | 0.273 |
| 700 | 0.142 | 0.136 | 0.373 | 0.372 | 0.314 |
| 650 | 0.175 | 0.172 | 0.438 | 0.438 | 0.354 |
| 600 | 0.215 | 0.215 | 0.512 | 0.515 | 0.399 |
| 550 | 0.263 | 0.266 | 0.592 | 0.597 | 0.448 |
| 500 | 0.319 | 0.327 | | 0.656 | 0.489 |
| 450 | 0.382 | 0.393 | | | |
| 400 | 0.439 | 0.455 | | | |
| 350 | | | | | |
| 300 | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | |
|---|---|---|---|---|---|
| 950 | 404.4 | 477.2 | 375.1 | 446.1 | 514.7 |
| 900 | 397.2 | 399.7 | 376.9 | 417.8 | 497.2 |
| 850 | 375.8 | 361.9 | 362.6 | 399.2 | 431.9 |
| 800 | 352.4 | 324.1 | 348.2 | 380.5 | 419.4 |
| 750 | 329.1 | 286.3 | 339.5 | 357.3 | 407.1 |
| 700 | 299.9 | 274.2 | 335.1 | 323.8 | 401.3 |
| 650 | 266.9 | 264.9 | 330.7 | 320.6 | 414.0 |
| 600 | 251.7 | 255.6 | 354.6 | 337.3 | 435.5 |
| 550 | 258.9 | 250.8 | 403.9 | 416.1 | 491.9 |
| 500 | 283.0 | 270.3 | | 816.4 | 729.3 |
| 450 | 319.2 | 311.0 | | | |
| 400 | 489.7 | 446.6 | | | |
| 350 | | | | | |
| 300 | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| LONG | -125.74 | -122.23 | -113.07 | -104.68 | -102.94 |
| LAT | 78.15 | 77.49 | 75.39 | 72.21 | 71.35 |
| QUAL | 21 | 31 | 32 | 31 | 31 |

PASS 4898 AT RESLUT, 63 923

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 42005 | 42040 | 42058 | 42115 | 42151 | 42208 | 42226 |
| 1000 | 0.047 | 0.016 | 0.017 | 0.012 | 0.029 | 0.034 | 0.032 |
| 950 | 0.054 | 0.020 | 0.019 | 0.017 | 0.032 | 0.039 | 0.038 |
| 900 | 0.059 | 0.022 | 0.023 | 0.021 | 0.036 | 0.042 | 0.043 |
| 850 | 0.063 | 0.026 | 0.027 | 0.025 | 0.041 | 0.047 | 0.048 |
| 800 | 0.071 | 0.029 | 0.032 | 0.029 | 0.048 | 0.054 | 0.053 |
| 750 | 0.081 | 0.033 | 0.038 | 0.035 | 0.058 | 0.063 | 0.060 |
| 700 | 0.089 | 0.037 | 0.045 | 0.042 | 0.069 | 0.074 | 0.073 |
| 650 | 0.098 | 0.044 | 0.054 | 0.050 | 0.085 | 0.088 | 0.091 |
| 600 | 0.107 | 0.054 | 0.068 | 0.063 | 0.103 | 0.105 | 0.112 |
| 550 | 0.116 | 0.068 | 0.084 | 0.080 | 0.125 | 0.138 | 0.137 |
| 500 | | 0.086 | 0.104 | 0.100 | 0.150 | 0.185 | 0.170 |
| 450 | | 0.108 | 0.127 | 0.119 | 0.234 | 0.259 | 0.228 |
| 400 | | 0.129 | | | 0.350 | 0.365 | 0.304 |
| 350 | | | | | 0.522 | 0.568 | 0.402 |
| 300 | | | | | 0.776 | 0.840 | 0.507 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | |
| 950 | 493.2 | 386.0 | 317.6 | 251.0 | 443.7 | 500.0 | 378.0 |
| 900 | 557.5 | 386.3 | 305.1 | 288.0 | 397.0 | 474.9 | 458.5 |
| 850 | 517.7 | 369.5 | 298.8 | 293.2 | 350.2 | 418.3 | 446.3 |
| 800 | 498.0 | 359.2 | 290.4 | 286.6 | 318.9 | 360.2 | 398.7 |
| 750 | 478.3 | 343.9 | 278.6 | 274.9 | 292.9 | 319.4 | 353.0 |
| 700 | 515.8 | 338.6 | 266.9 | 260.4 | 266.9 | 297.0 | 313.0 |
| 650 | 555.3 | 300.8 | 259.0 | 245.9 | 250.9 | 274.6 | 273.1 |
| 600 | 594.9 | 250.5 | 253.8 | 238.4 | 235.3 | 248.3 | 242.9 |
| 550 | 634.4 | 226.2 | 248.5 | 231.2 | 219.7 | 199.7 | 225.0 |
| 500 | | 224.7 | 248.6 | 255.7 | 204.1 | 162.2 | 208.7 |
| 450 | | 252.4 | 317.7 | 364.0 | 161.2 | 149.3 | 197.8 |
| 400 | | 380.8 | | | 124.7 | 136.7 | 186.9 |
| 350 | | | | | 127.0 | 125.1 | 207.7 |
| 300 | | | | | 121.0 | 139.7 | 287.0 |
| LONG | -101.41 | -98.93 | -97.65 | -96.70 | -94.76 | -93.95 | -93.20 |
| LAT | 70.53 | 68.77 | 67.86 | 66.98 | 65.11 | 64.21 | 63.26 |
| QUAL | 32 | 21 | 21 | 31 | 23 | 23 | 21 |

PASS 4898 AT OTTAWA, 63 923

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 42418 | 42453 | 42511 | 42603 | 42638 | 42713 | 42749 | 42824 |
| 1000 | 0.083 | 0.046 | 0.034 | 0.020 | 0.044 | 0.043 | 0.086 | 0.130 |
| 950 | 0.093 | 0.053 | 0.040 | 0.025 | 0.052 | 0.050 | 0.095 | 0.142 |
| 900 | 0.103 | 0.057 | 0.044 | 0.029 | 0.060 | 0.056 | 0.104 | 0.154 |
| 850 | 0.115 | 0.062 | 0.048 | 0.033 | 0.068 | 0.063 | 0.115 | 0.170 |
| 800 | 0.130 | 0.069 | 0.056 | 0.038 | 0.077 | 0.072 | 0.133 | 0.191 |
| 750 | 0.148 | 0.078 | 0.068 | 0.043 | 0.089 | 0.085 | 0.156 | 0.221 |
| 700 | 0.171 | 0.093 | 0.083 | 0.051 | 0.105 | 0.104 | 0.184 | 0.258 |
| 650 | 0.198 | 0.111 | 0.097 | 0.063 | 0.123 | 0.129 | 0.218 | 0.301 |
| 600 | 0.231 | 0.133 | 0.113 | 0.077 | 0.144 | 0.159 | 0.264 | 0.350 |
| 550 | 0.273 | 0.161 | 0.131 | 0.096 | 0.184 | 0.196 | 0.318 | 0.408 |
| 500 | 0.326 | 0.204 | 0.163 | 0.123 | 0.236 | 0.239 | 0.383 | 0.503 |
| 450 | 0.388 | 0.255 | 0.205 | 0.161 | 0.299 | 0.326 | 0.512 | 0.621 |
| 400 | 0.462 | 0.316 | 0.269 | 0.231 | 0.408 | 0.465 | 0.676 | 0.757 |
| 350 | 0.530 | 0.391 | 0.353 | 0.328 | 0.562 | 0.664 | 0.869 | 0.907 |
| 300 | | 0.482 | 0.433 | 0.465 | 0.778 | 0.904 | 1.067 | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 476.3 | 604.3 | 472.2 | | 379.0 | 405.0 | 548.4 | 603.4 |
| 900 | 462.5 | 636.2 | 470.2 | 382.2 | 391.6 | 408.7 | 480.5 | 533.0 |
| 850 | 431.3 | 541.5 | 410.5 | 396.5 | 370.6 | 372.5 | 405.2 | 471.5 |
| 800 | 390.2 | 457.2 | 368.2 | 359.0 | 343.3 | 336.4 | 375.4 | 413.6 |
| 750 | 367.1 | 372.8 | 331.4 | 312.3 | 325.7 | 308.5 | 347.7 | 367.7 |
| 700 | 346.0 | 334.3 | 297.4 | 288.8 | 308.2 | 286.4 | 320.1 | 326.1 |
| 650 | 331.4 | 306.3 | 295.0 | 269.1 | 290.7 | 264.3 | 293.7 | 313.9 |
| 600 | 316.8 | 278.2 | 292.5 | 249.4 | 273.2 | 243.9 | 272.4 | 301.6 |
| 550 | 304.9 | 254.1 | 285.1 | 225.7 | 247.7 | 226.9 | 251.1 | 289.2 |
| 500 | 294.8 | 250.2 | 243.2 | 196.1 | 220.4 | 209.9 | 229.9 | 275.6 |
| 450 | 303.6 | 246.4 | 205.3 | 169.9 | 193.0 | 158.8 | 209.3 | 262.1 |
| 400 | 332.5 | 242.5 | 192.8 | 155.8 | 169.4 | 148.3 | 195.8 | 271.2 |
| 350 | 420.2 | 240.3 | 248.8 | 149.4 | 166.2 | 157.0 | 223.1 | 367.9 |
| 300 | | 239.1 | 393.3 | 162.0 | 194.2 | 187.2 | 275.3 | |
| LONG | -89.30 | -88.36 | -87.93 | -86.78 | -86.13 | -85.51 | -84.94 | -84.44 |
| LAT | 57.24 | 55.33 | 54.34 | 51.48 | 49.55 | 47.61 | 45.61 | 43.66 |
| QUAL | 31 | 33 | 21 | 31 | 33 | 33 | 31 | 31 |

PASS 4898 AT OTTAWA, 63 923

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 42859 | 42934 | 43009 | 43044 |
| 1000 | 0.158 | 0.141 | 0.139 | 0.139 |
| 950 | 0.169 | 0.160 | 0.155 | 0.156 |
| 900 | 0.183 | 0.175 | 0.171 | 0.175 |
| 850 | 0.199 | 0.192 | 0.190 | 0.196 |
| 800 | 0.222 | 0.214 | 0.213 | 0.220 |
| 750 | 0.252 | 0.240 | 0.244 | 0.251 |
| 700 | 0.288 | 0.272 | 0.281 | 0.287 |
| 650 | 0.330 | 0.309 | 0.324 | 0.330 |
| 600 | 0.377 | 0.352 | 0.372 | 0.380 |
| 550 | 0.432 | 0.402 | 0.426 | 0.436 |
| 500 | 0.498 | 0.470 | | |
| 450 | 0.573 | 0.547 | | |
| 400 | 0.645 | 0.624 | | |
| 350 | | 0.690 | | |
| 300 | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 683.4 | | 481.3 | 437.9 |
| 900 | 593.5 | 530.4 | 468.7 | 425.6 |
| 850 | 512.8 | 497.9 | 437.7 | 413.1 |
| 800 | 463.7 | 452.9 | 407.5 | 400.7 |
| 750 | 419.4 | 404.0 | 388.2 | 388.4 |
| 700 | 386.0 | 395.2 | 368.8 | 376.2 |
| 650 | 379.2 | 386.5 | 360.9 | 364.5 |
| 600 | 372.5 | 377.7 | 360.5 | 353.9 |
| 550 | 368.9 | 368.8 | 360.2 | 343.4 |
| 500 | 369.7 | 359.4 | | |
| 450 | 398.2 | 360.0 | | |
| 400 | 551.8 | 427.9 | | |
| 350 | | | | |
| 300 | | | | |
| LONG | -83.96 | -83.55 | -83.15 | -82.78 |
| LAT | 41.71 | 39.75 | 37.79 | 35.83 |
| QUAL | 31 | 21 | 13 | 13 |

PASS 4911 AT QUITUE, 63 924

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 33553 | 33628 | 33701 | 33756 |
| 1000 | 0.094 | 0.116 | 0.115 | 0.093 |
| 950 | 0.105 | 0.129 | 0.126 | 0.105 |
| 900 | 0.118 | 0.143 | 0.139 | 0.117 |
| 850 | 0.133 | 0.161 | 0.155 | 0.131 |
| 800 | 0.152 | 0.184 | 0.178 | 0.148 |
| 750 | 0.183 | 0.226 | 0.220 | 0.172 |
| 700 | 0.245 | 0.299 | 0.291 | 0.212 |
| 650 | 0.352 | 0.430 | 0.404 | 0.293 |
| 600 | 0.525 | 0.600 | 0.579 | 0.424 |
| 550 | 0.777 | 0.880 | 0.858 | 0.618 |
| 500 | 1.201 | 1.356 | 1.360 | 0.978 |
| 450 | 1.920 | 2.161 | 2.289 | 1.624 |
| 400 | 3.288 | 3.640 | 4.171 | 2.884 |
| 350 | 6.198 | 6.422 | 7.332 | 5.288 |
| 300 | 0.218 | | | 9.274 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 437.9 | 510.2 | 548.2 | 452.1 |
| 900 | 417.0 | 445.2 | 467.3 | 450.9 |
| 850 | 397.3 | 371.5 | 408.4 | 419.5 |
| 800 | 319.5 | 313.6 | 301.1 | 377.2 |
| 750 | 223.6 | 235.9 | 216.1 | 293.1 |
| 700 | 160.4 | 162.7 | 172.1 | 204.2 |
| 650 | 133.4 | 144.9 | 147.7 | 147.8 |
| 600 | 127.0 | 139.7 | 132.3 | 134.6 |
| 550 | 121.2 | 127.7 | 120.5 | 119.8 |
| 500 | 112.5 | 115.2 | 103.7 | 106.9 |
| 450 | 101.7 | 99.6 | 88.9 | 96.6 |
| 400 | 85.6 | 92.1 | 84.4 | 84.3 |
| 350 | 83.8 | 89.4 | 104.2 | 79.7 |
| 300 | 126.8 | | | 100.7 |
| LONG | -62.45 | -62.26 | -62.07 | -61.74 |
| LAT | -9.28 | -11.26 | -13.12 | -16.22 |
| QUAL | 22 | 23 | 23 | 22 |

PASS 4911 AT SULANT, 63 924

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 34538 | 34613 |
| 1000 | 0.061 | 0.059 |
| 950 | 0.064 | 0.062 |
| 900 | 0.068 | 0.067 |
| 850 | 0.072 | 0.072 |
| 800 | 0.080 | 0.077 |
| 750 | 0.091 | 0.083 |
| 700 | 0.109 | 0.092 |
| 650 | 0.138 | 0.109 |
| 600 | 0.195 | 0.135 |
| 550 | 0.313 | 0.182 |
| 500 | 0.524 | 0.270 |
| 450 | 0.863 | 0.499 |
| 400 | 1.338 | 1.026 |
| 350 | 1.724 | |
| 300 | | |

| HEIGHT | SCALE HEIGHT, KM | |
|---|---|---|
| 950 | 946.7 | 710.1 |
| 900 | 791.9 | 741.2 |
| 850 | 624.6 | 750.8 |
| 800 | 471.1 | 663.7 |
| 750 | 345.9 | 548.4 |
| 700 | 260.8 | 395.4 |
| 650 | 191.3 | 286.5 |
| 600 | 137.1 | 206.9 |
| 550 | 104.3 | 152.6 |
| 500 | 97.5 | 112.3 |
| 450 | 109.4 | 68.3 |
| 400 | 151.6 | 101.8 |
| 350 | 258.7 | |
| 300 | | |

| | | |
|---|---|---|
| LONG | -57.79 | -57.33 |
| LAT | -42.04 | -43.96 |
| QUAL | 32 | 32 |

PASS 4939 AT COLEGE, 63 926

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 42219 | 42254 | 42328 | 42404 | 42440 | 42515 | 42550 | 42625 |
| 1000 | 0.074 | 0.107 | 0.056 | 0.066 | 0.052 | 0.071 | 0.017 | 0.012 |
| 950 | 0.085 | 0.124 | 0.067 | 0.075 | 0.062 | 0.080 | 0.024 | 0.017 |
| 900 | 0.097 | 0.145 | 0.076 | 0.087 | 0.071 | 0.091 | 0.030 | 0.021 |
| 850 | 0.113 | 0.169 | 0.088 | 0.102 | 0.083 | 0.105 | 0.037 | 0.025 |
| 800 | 0.131 | 0.195 | 0.103 | 0.120 | 0.102 | 0.123 | 0.046 | 0.031 |
| 750 | 0.159 | 0.231 | 0.121 | 0.145 | 0.127 | 0.150 | 0.057 | 0.039 |
| 700 | 0.195 | 0.276 | 0.143 | 0.180 | 0.158 | 0.185 | 0.071 | 0.049 |
| 650 | 0.241 | 0.330 | 0.173 | 0.224 | 0.196 | 0.229 | 0.090 | 0.072 |
| 600 | 0.301 | 0.401 | 0.230 | 0.282 | 0.254 | 0.283 | 0.121 | 0.103 |
| 550 | 0.372 | 0.515 | 0.301 | 0.352 | 0.325 | 0.347 | 0.164 | 0.145 |
| 500 | 0.489 | | 0.403 | 0.456 | 0.421 | 0.444 | 0.229 | 0.202 |
| 450 | 0.642 | | 0.550 | 0.600 | 0.563 | 0.581 | 0.313 | 0.273 |
| 400 | 0.854 | | 0.742 | 0.795 | 0.750 | 0.757 | 0.428 | 0.371 |
| 350 | 1.134 | | 0.993 | 1.053 | 1.006 | 0.975 | 0.575 | 0.508 |
| 300 | 1.466 | | 1.332 | 1.367 | 1.328 | 1.241 | 0.772 | 0.690 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 355.8 | 331.0 | 349.9 | 340.5 | 336.8 | 386.1 | 188.0 | 198.3 |
| 900 | 339.2 | 328.1 | 342.1 | 317.6 | 311.0 | 356.0 | 226.6 | 273.5 |
| 850 | 319.4 | 317.4 | 320.2 | 302.3 | 278.3 | 327.8 | 245.1 | 237.5 |
| 800 | 299.6 | 300.7 | 303.4 | 286.9 | 262.5 | 299.9 | 230.0 | 222.0 |
| 750 | 276.0 | 292.8 | 286.6 | 268.8 | 249.9 | 275.3 | 218.7 | 206.6 |
| 700 | 252.2 | 278.4 | 269.8 | 247.5 | 237.2 | 250.8 | 209.3 | 191.1 |
| 650 | 234.5 | 264.0 | 250.3 | 226.8 | 224.6 | 236.6 | 199.9 | 173.6 |
| 600 | 223.2 | 238.4 | 221.5 | 218.0 | 212.6 | 229.7 | 181.0 | 156.3 |
| 550 | 212.0 | 182.6 | 192.6 | 209.2 | 200.6 | 222.8 | 159.5 | 150.3 |
| 500 | 197.5 | | 175.5 | 198.3 | 189.9 | 210.9 | 160.0 | 156.7 |
| 450 | 182.7 | | 169.9 | 186.3 | 181.3 | 196.4 | 162.9 | 163.1 |
| 400 | 178.4 | | 169.3 | 180.3 | 174.8 | 196.5 | 167.1 | 166.0 |
| 350 | 192.5 | | 175.8 | 191.9 | 182.2 | 204.7 | 171.7 | 165.6 |
| 300 | 225.0 | | 194.4 | 228.8 | 220.2 | 220.0 | 170.6 | 165.9 |
| LONG | -155.49 | -144.76 | -136.38 | -128.25 | -122.34 | -117.31 | -113.27 | -110.03 |
| LAT | 80.09 | 79.49 | 78.50 | 77.33 | 75.86 | 74.36 | 72.76 | 71.07 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 4939 AT COLEGE, 63 926

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 42700 | 42735 | 42811 | 42846 | 42921 | 42956 | 43031 | 43049 |
| 1000 | 0.033 | 0.028 | 0.010 | 0.013 | 0.011 | 0.011 | 0.010 | 0.010 |
| 950 | 0.042 | 0.035 | 0.014 | 0.018 | 0.017 | 0.016 | 0.013 | 0.013 |
| 900 | 0.049 | 0.040 | 0.016 | 0.023 | 0.023 | 0.019 | 0.015 | 0.015 |
| 850 | 0.055 | 0.046 | 0.018 | 0.028 | 0.028 | 0.022 | 0.017 | 0.016 |
| 800 | 0.062 | 0.055 | 0.022 | 0.035 | 0.033 | 0.024 | 0.019 | 0.018 |
| 750 | 0.074 | 0.069 | 0.028 | 0.043 | 0.038 | 0.027 | 0.022 | 0.021 |
| 700 | 0.089 | 0.087 | 0.035 | 0.054 | 0.044 | 0.032 | 0.026 | 0.025 |
| 650 | 0.107 | 0.112 | 0.045 | 0.066 | 0.050 | 0.038 | 0.032 | 0.032 |
| 600 | 0.139 | 0.142 | 0.058 | 0.090 | 0.060 | 0.046 | 0.039 | 0.041 |
| 550 | 0.184 | 0.181 | 0.074 | 0.118 | 0.073 | 0.056 | 0.053 | 0.053 |
| 500 | 0.249 | 0.246 | 0.093 | 0.152 | 0.095 | 0.077 | 0.071 | 0.074 |
| 450 | 0.332 | 0.327 | 0.124 | 0.208 | 0.130 | 0.106 | 0.101 | 0.102 |
| 400 | 0.453 | 0.421 | 0.163 | 0.282 | 0.191 | 0.147 | 0.161 | 0.137 |
| 350 | 0.612 | 0.527 | 0.208 | 0.391 | 0.289 | 0.221 | 0.241 | 0.223 |
| 300 | 0.807 | | 0.262 | 0.558 | 0.454 | 0.326 | 0.393 | 0.367 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 284.3 | 306.2 | 237.0 | 187.8 | 155.3 | 187.0 | 275.0 | 307.9 |
| 900 | 383.4 | 390.2 | 366.9 | 216.7 | 211.0 | 357.3 | 406.8 | 569.4 |
| 850 | 367.8 | 316.9 | 283.0 | 223.3 | 261.6 | 451.8 | 411.7 | 509.8 |
| 800 | 346.0 | 268.5 | 264.0 | 221.1 | 304.5 | 417.7 | 366.1 | 401.2 |
| 750 | 297.1 | 239.7 | 245.1 | 218.8 | 342.2 | 358.1 | 305.2 | 323.4 |
| 700 | 260.0 | 212.8 | 226.1 | 216.5 | 328.9 | 299.7 | 276.5 | 262.9 |
| 650 | 229.4 | 206.4 | 216.7 | 214.3 | 313.9 | 273.2 | 247.7 | 227.0 |
| 600 | 201.3 | 200.1 | 211.2 | 203.6 | 277.7 | 246.7 | 219.0 | 204.6 |
| 550 | 176.0 | 194.7 | 205.7 | 192.9 | 230.5 | 220.2 | 191.8 | 182.2 |
| 500 | 173.4 | 194.0 | 201.0 | 182.1 | 190.1 | 194.5 | 164.5 | 167.4 |
| 450 | 170.8 | 193.2 | 204.4 | 171.5 | 156.1 | 168.8 | 142.0 | 154.6 |
| 400 | 173.6 | 211.6 | 207.8 | 161.0 | 134.4 | 146.4 | 130.6 | 141.8 |
| 350 | 178.0 | 231.6 | 221.3 | 153.7 | 120.8 | 133.5 | 119.2 | 119.0 |
| 300 | 183.2 | | 270.6 | 149.5 | 124.3 | 122.6 | 104.4 | 102.8 |
| LONG | -107.11 | -104.94 | -102.87 | -101.20 | -99.76 | -98.46 | -97.38 | -96.84 |
| LAT | 69.35 | 67.55 | 65.69 | 63.85 | 61.99 | 60.11 | 58.22 | 57.25 |
| QUAL | 33 | 33 | 31 | 33 | 33 | 33 | 33 | 33 |

PASS 4939 AT AGASTA, 63 926

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 45830 | 45906 | 45941 | 50016 | 50051 | 50109 | 50220 | 50255 |
| 1000 | 0.119 | 0.121 | 0.119 | 0.122 | 0.113 | 0.118 | 0.111 | 0.113 |
| 950 | 0.126 | 0.128 | 0.126 | 0.129 | 0.120 | 0.125 | 0.119 | 0.119 |
| 900 | 0.133 | 0.135 | 0.133 | 0.136 | 0.127 | 0.132 | 0.127 | 0.128 |
| 850 | 0.141 | 0.143 | 0.141 | 0.144 | 0.136 | 0.141 | 0.137 | 0.140 |
| 800 | 0.149 | 0.155 | 0.152 | 0.157 | 0.146 | 0.152 | 0.149 | 0.156 |
| 750 | 0.157 | 0.171 | 0.167 | 0.174 | 0.159 | 0.168 | 0.168 | 0.178 |
| 700 | 0.172 | 0.191 | 0.187 | 0.195 | 0.179 | 0.187 | 0.196 | 0.206 |
| 650 | 0.199 | 0.216 | 0.217 | 0.237 | 0.207 | 0.218 | 0.241 | 0.266 |
| 600 | 0.237 | 0.262 | 0.288 | 0.308 | 0.269 | 0.284 | 0.318 | 0.370 |
| 550 | 0.314 | 0.377 | 0.418 | 0.455 | 0.384 | 0.380 | 0.471 | 0.536 |
| 500 | 0.478 | 0.638 | 0.607 | 0.719 | 0.620 | 0.573 | 0.780 | 0.861 |
| 450 | 0.775 | 1.078 | 1.020 | 1.149 | 1.054 | 0.975 | 1.242 | 1.380 |
| 400 | 1.228 | 1.625 | 1.664 | 1.791 | 1.750 | 1.595 | 1.948 | 2.101 |
| 350 | | | 2.365 | | 2.587 | 2.435 | 2.688 | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 911.7 | 930.1 | 958.6 | 915.8 | 838.3 | 913.6 | 740.8 | 764.3 |
| 900 | 888.0 | 830.7 | 867.1 | 827.0 | 780.5 | 826.3 | 702.0 | 656.4 |
| 850 | 817.7 | 720.2 | 739.9 | 721.8 | 701.2 | 722.0 | 605.0 | 552.0 |
| 800 | 741.9 | 609.2 | 601.0 | 578.6 | 611.4 | 579.1 | 493.0 | 453.8 |
| 750 | 666.2 | 503.7 | 499.7 | 458.7 | 518.1 | 478.5 | 395.5 | 372.3 |
| 700 | 558.1 | 429.7 | 409.7 | 355.7 | 404.2 | 394.7 | 303.2 | 290.9 |
| 650 | 400.4 | 355.7 | 287.3 | 236.7 | 290.3 | 295.7 | 230.4 | 193.1 |
| 600 | 250.6 | 219.7 | 159.6 | 159.8 | 176.4 | 178.6 | 165.1 | 145.4 |
| 550 | 172.0 | 117.5 | 131.7 | 123.3 | 129.4 | 151.1 | 120.5 | 124.9 |
| 500 | 115.9 | 98.9 | 120.1 | 112.0 | 107.2 | 120.0 | 107.6 | 108.3 |
| 450 | 107.4 | 109.8 | 88.0 | 108.3 | 96.5 | 100.2 | 109.9 | 111.9 |
| 400 | 118.0 | 141.5 | 115.9 | 120.8 | 110.8 | 104.8 | 123.9 | 138.5 |
| 350 | | | 207.9 | | 152.6 | 144.3 | 237.9 | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -81.75 | -81.38 | -80.99 | -80.56 | -80.11 | -79.85 | -78.74 | -78.12 |
| LAT | -35.92 | -37.92 | -39.87 | -41.80 | -43.72 | -44.71 | -48.61 | -50.52 |
| QUAL | 23 | 23 | 23 | 13 | 13 | 13 | 23 | 33 |

PASS 4939 AT AGASTA, 63 926

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | |
|---|---|---|---|---|---|
| | 50330 | 50406 | 50441 | 50516 | 50626 |
| 1000 | 0.114 | 0.096 | 0.094 | 0.075 | 0.038 |
| 950 | 0.122 | 0.102 | 0.100 | 0.079 | 0.042 |
| 900 | 0.131 | 0.109 | 0.107 | 0.085 | 0.046 |
| 850 | 0.139 | 0.119 | 0.119 | 0.092 | 0.050 |
| 800 | 0.156 | 0.134 | 0.134 | 0.108 | 0.056 |
| 750 | 0.161 | 0.151 | 0.154 | 0.132 | 0.066 |
| 700 | 0.214 | 0.171 | 0.197 | 0.165 | 0.078 |
| 650 | 0.275 | 0.217 | 0.259 | 0.214 | 0.093 |
| 600 | 0.392 | 0.309 | 0.366 | 0.319 | 0.112 |
| 550 | 0.558 | 0.477 | 0.558 | 0.478 | 0.142 |
| 500 | 0.883 | 0.747 | 0.848 | 0.754 | 0.189 |
| 450 | 1.377 | 1.175 | 1.293 | 1.145 | 0.261 |
| 400 | 2.040 | 1.774 | 1.824 | 1.557 | 0.355 |
| 350 | | | | | 0.472 |
| 300 | | | | | 0.605 |

| HEIGHT | SCALE HEIGHT, KM | | | | |
|---|---|---|---|---|---|
| 950 | 745.4 | 809.4 | 795.2 | 745.6 | 573.5 |
| 900 | 673.2 | 669.3 | 614.5 | 621.1 | 530.4 |
| 850 | 567.9 | 507.6 | 425.3 | 496.6 | 459.6 |
| 800 | 471.5 | 407.4 | 361.9 | 380.1 | 388.8 |
| 750 | 376.4 | 362.4 | 296.1 | 265.8 | 352.0 |
| 700 | 276.6 | 317.4 | 209.0 | 210.0 | 321.1 |
| 650 | 174.4 | 191.5 | 166.2 | 168.2 | 290.1 |
| 600 | 145.6 | 123.7 | 139.2 | 126.6 | 254.1 |
| 550 | 126.6 | 117.0 | 121.6 | 117.9 | 203.5 |
| 500 | 114.2 | 114.1 | 121.0 | 116.9 | 175.9 |
| 450 | 119.9 | 113.1 | 131.8 | 140.7 | 161.9 |
| 400 | 157.2 | 143.7 | 178.6 | 208.1 | 176.2 |
| 350 | | | | | 193.3 |
| 300 | | | | | 245.1 |

| | | | | | |
|---|---|---|---|---|---|
| LONG | -77.40 | -76.63 | -75.75 | -74.79 | -72.45 |
| LAT | -52.42 | -54.37 | -56.26 | -58.14 | -61.85 |
| QUAL | 33 | 23 | 23 | 32 | 31 |

PASS 4939 AT SOLANT, 63 926

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 45848 | 45924 | 45959 | 50034 | 50109 | 50441 | 50516 | 50552 |
| 1000 | 0.123 | 0.119 | 0.128 | 0.121 | 0.125 | 0.095 | 0.070 | 0.060 |
| 950 | 0.130 | 0.126 | 0.135 | 0.128 | 0.132 | 0.101 | 0.077 | 0.064 |
| 900 | 0.138 | 0.133 | 0.142 | 0.134 | 0.138 | 0.110 | 0.084 | 0.068 |
| 850 | 0.147 | 0.141 | 0.151 | 0.143 | 0.147 | 0.121 | 0.095 | 0.073 |
| 800 | 0.157 | 0.152 | 0.164 | 0.154 | 0.159 | 0.137 | 0.108 | 0.080 |
| 750 | 0.166 | 0.168 | 0.182 | 0.169 | 0.176 | 0.160 | 0.130 | 0.090 |
| 700 | 0.182 | 0.187 | 0.209 | 0.189 | 0.198 | 0.201 | 0.160 | 0.108 |
| 650 | 0.208 | 0.215 | 0.254 | 0.218 | 0.230 | 0.292 | 0.198 | 0.141 |
| 600 | 0.265 | 0.271 | 0.329 | 0.289 | 0.296 | 0.448 | 0.324 | 0.193 |
| 550 | 0.390 | 0.367 | 0.450 | 0.424 | 0.414 | 0.641 | 0.516 | 0.289 |
| 500 | 0.627 | 0.558 | 0.748 | 0.668 | 0.636 | 0.892 | 0.758 | 0.521 |
| 450 | 1.010 | 0.955 | 1.157 | 1.183 | 1.057 | 1.316 | 1.149 | 0.829 |
| 400 | 1.502 | 1.469 | | | 1.781 | 1.716 | 1.616 | 1.222 |
| 350 | | | | | 2.604 | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 869.7 | 929.9 | 949.0 | 983.0 | 1005.3 | 682.0 | 520.8 | 917.4 |
| 900 | 811.5 | 867.2 | 849.1 | 872.8 | 860.1 | 573.4 | 460.1 | 777.9 |
| 850 | 764.5 | 740.2 | 718.6 | 741.8 | 721.8 | 468.3 | 397.1 | 617.6 |
| 800 | 700.8 | 594.9 | 570.6 | 605.1 | 584.4 | 381.4 | 334.1 | 499.7 |
| 750 | 637.1 | 502.8 | 438.7 | 505.2 | 486.8 | 298.5 | 284.3 | 373.3 |
| 700 | 514.2 | 418.0 | 323.6 | 415.3 | 400.2 | 181.8 | 236.1 | 220.7 |
| 650 | 344.7 | 320.7 | 228.3 | 292.8 | 295.4 | 144.5 | 187.9 | 173.7 |
| 600 | 201.1 | 191.5 | 182.7 | 156.9 | 173.4 | 134.2 | 141.5 | 148.5 |
| 550 | 122.2 | 149.8 | 142.0 | 125.0 | 135.4 | 138.9 | 115.9 | 107.8 |
| 500 | 108.1 | 104.3 | 110.5 | 91.9 | 115.1 | 140.6 | 124.8 | 97.9 |
| 450 | 116.9 | 105.9 | 117.6 | 98.9 | 96.1 | 167.3 | 130.0 | 118.6 |
| 400 | 134.2 | 126.4 | | | 110.7 | 314.4 | 242.5 | 166.7 |
| 350 | | | | | 172.2 | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -81.57 | -81.18 | -80.78 | -80.33 | -79.85 | -75.75 | -74.79 | -73.69 |
| LAT | -36.92 | -38.92 | -40.86 | -42.79 | -44.71 | -56.26 | -58.14 | -60.05 |
| QUAL | 33 | 33 | 23 | 23 | 23 | 23 | 22 | 32 |

PASS 4939 AT SOLANT, 63 926

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) |
|---|---|
| | 5062.7 |
| 1000 | 0.038 |
| 950 | 0.041 |
| 900 | 0.045 |
| 850 | 0.049 |
| 800 | 0.055 |
| 750 | 0.064 |
| 700 | 0.077 |
| 650 | 0.094 |
| 600 | 0.116 |
| 550 | 0.148 |
| 500 | 0.196 |
| 450 | 0.276 |
| 400 | 0.376 |
| 350 | 0.496 |
| 300 | 0.627 |

| HEIGHT | SCALE HEIGHT, KM |
|---|---|
| 950 | 604.4 |
| 900 | 533.2 |
| 850 | 465.9 |
| 800 | 398.7 |
| 750 | 349.9 |
| 700 | 310.3 |
| 650 | 270.8 |
| 600 | 233.9 |
| 550 | 201.2 |
| 500 | 173.3 |
| 450 | 155.5 |
| 400 | 173.2 |
| 350 | 204.0 |
| 300 | 283.8 |

LONG -72.41
LAT -61.90

QUAL 31

PASS 4952 AT RESLUT, 63 927

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 31620 | 31637 | 31655 | 31712 | 31730 | 31805 | 31823 | 31840 |
| 1000 | 0.031 | 0.022 | 0.013 | 0.014 | 0.012 | 0.008 | 0.008 | 0.008 |
| 950 | 0.039 | 0.028 | 0.019 | 0.020 | 0.017 | 0.011 | 0.010 | 0.010 |
| 900 | 0.046 | 0.035 | 0.024 | 0.025 | 0.021 | 0.013 | 0.013 | 0.013 |
| 850 | 0.055 | 0.043 | 0.030 | 0.031 | 0.026 | 0.018 | 0.017 | 0.017 |
| 800 | 0.065 | 0.052 | 0.037 | 0.038 | 0.034 | 0.024 | 0.024 | 0.022 |
| 750 | 0.076 | 0.067 | 0.050 | 0.050 | 0.045 | 0.032 | 0.032 | 0.030 |
| 700 | 0.096 | 0.088 | 0.066 | 0.068 | 0.058 | 0.043 | 0.042 | 0.044 |
| 650 | 0.128 | 0.117 | 0.088 | 0.091 | 0.076 | 0.064 | 0.075 | 0.065 |
| 600 | 0.179 | 0.164 | 0.127 | 0.125 | 0.115 | 0.092 | 0.118 | 0.093 |
| 550 | 0.258 | 0.249 | 0.185 | 0.179 | 0.166 | 0.143 | 0.171 | 0.140 |
| 500 | 0.386 | 0.386 | 0.286 | 0.281 | 0.256 | 0.218 | 0.252 | 0.210 |
| 450 | 0.525 | 0.561 | 0.425 | 0.425 | 0.378 | 0.324 | 0.354 | 0.310 |
| 400 | 0.758 | 0.797 | 0.609 | 0.610 | 0.546 | 0.475 | 0.524 | 0.449 |
| 350 | 1.128 | 1.108 | 0.884 | 0.885 | 0.770 | 0.680 | 0.749 | 0.638 |
| 300 | 1.672 | | 1.250 | 1.211 | 1.068 | 0.953 | 1.039 | 0.886 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 260.1 | 222.1 | 174.3 | 189.3 | 230.3 | 207.3 | 218.6 | 218.6 |
| 900 | 285.8 | 236.3 | 205.1 | 201.5 | 233.4 | 188.0 | 180.3 | 200.6 |
| 850 | 276.1 | 228.6 | 204.1 | 201.7 | 204.7 | 171.2 | 169.1 | 183.1 |
| 800 | 265.9 | 221.0 | 198.6 | 201.8 | 190.1 | 167.8 | 162.3 | 169.5 |
| 750 | 255.8 | 206.0 | 188.8 | 194.2 | 183.1 | 164.5 | 155.6 | 155.9 |
| 700 | 218.5 | 188.9 | 179.1 | 182.9 | 176.2 | 160.1 | 148.8 | 142.5 |
| 650 | 161.9 | 169.8 | 167.7 | 171.6 | 167.3 | 145.6 | 143.3 | 134.5 |
| 600 | 142.7 | 139.0 | 145.0 | 152.4 | 148.3 | 131.1 | 137.7 | 131.6 |
| 550 | 142.6 | 127.8 | 129.4 | 125.5 | 129.2 | 125.1 | 132.2 | 128.3 |
| 500 | 144.2 | 126.4 | 129.1 | 126.1 | 130.5 | 123.1 | 135.0 | 127.0 |
| 450 | 140.2 | 138.4 | 131.9 | 129.6 | 133.7 | 129.3 | 138.0 | 130.8 |
| 400 | 132.4 | 147.5 | 138.0 | 137.5 | 142.2 | 136.6 | 139.8 | 139.1 |
| 350 | 127.1 | 159.3 | 139.6 | 148.2 | 149.8 | 145.5 | 146.9 | 150.4 |
| 300 | 133.2 | | 149.6 | 172.7 | 159.5 | 158.8 | 156.3 | 170.4 |
| LONG | -108.65 | -106.03 | -103.25 | -101.17 | -99.20 | -95.54 | -94.12 | -92.78 |
| LAT | 76.26 | 75.55 | 74.80 | 74.03 | 73.18 | 71.53 | 70.64 | 69.80 |
| QUAL | 33 | 33 | 33 | 33 | 33 | 33 | 33 | 33 |

PASS 4952 AT RESLUT, 63 927

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 31915 | 31951 | 32229 | 32304 | 32322 | 32339 | 32414 | 32432 |
| 1000 | 0.008 | 0.007 | 0.014 | 0.024 | 0.021 | 0.017 | 0.030 | 0.031 |
| 950 | 0.011 | 0.010 | 0.020 | 0.029 | 0.029 | 0.021 | 0.038 | 0.039 |
| 900 | 0.014 | 0.013 | 0.025 | 0.033 | 0.037 | 0.024 | 0.046 | 0.047 |
| 850 | 0.019 | 0.016 | 0.030 | 0.040 | 0.044 | 0.028 | 0.055 | 0.057 |
| 800 | 0.025 | 0.022 | 0.035 | 0.047 | 0.052 | 0.034 | 0.066 | 0.068 |
| 750 | 0.033 | 0.028 | 0.043 | 0.058 | 0.062 | 0.041 | 0.078 | 0.082 |
| 700 | 0.042 | 0.041 | 0.055 | 0.073 | 0.075 | 0.052 | 0.091 | 0.098 |
| 650 | 0.062 | 0.062 | 0.070 | 0.092 | 0.091 | 0.064 | 0.109 | 0.119 |
| 600 | 0.098 | 0.090 | 0.088 | 0.119 | 0.111 | 0.078 | 0.139 | 0.158 |
| 550 | 0.144 | 0.130 | 0.112 | 0.151 | 0.140 | 0.094 | 0.176 | 0.208 |
| 500 | 0.210 | 0.187 | 0.141 | 0.198 | 0.178 | 0.127 | 0.229 | 0.266 |
| 450 | 0.295 | 0.269 | | 0.271 | 0.240 | 0.170 | 0.331 | 0.369 |
| 400 | 0.420 | 0.392 | | 0.368 | 0.337 | 0.250 | 0.500 | 0.505 |
| 350 | 0.602 | 0.561 | | 0.515 | 0.471 | 0.366 | 0.710 | 0.673 |
| 300 | 0.846 | 0.770 | | 0.708 | 0.648 | 0.576 | 0.937 | 0.836 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 189.4 | 218.1 | 202.9 | 533.5 | 188.5 | 323.9 | 244.1 | 245.2 |
| 900 | 183.1 | 198.1 | 228.8 | 362.0 | 239.8 | 323.0 | 262.8 | 254.6 |
| 850 | 177.1 | 182.8 | 234.3 | 284.8 | 263.0 | 296.8 | 270.5 | 257.8 |
| 800 | 172.1 | 173.7 | 239.7 | 261.3 | 271.0 | 268.9 | 269.8 | 252.7 |
| 750 | 167.1 | 164.7 | 238.1 | 249.5 | 274.3 | 248.7 | 269.0 | 247.7 |
| 700 | 162.1 | 157.0 | 230.8 | 237.7 | 263.7 | 242.6 | 268.2 | 242.7 |
| 650 | 155.3 | 150.7 | 223.5 | 225.9 | 253.1 | 236.4 | 261.1 | 235.9 |
| 600 | 146.6 | 144.3 | 216.7 | 210.7 | 238.9 | 230.3 | 234.7 | 218.5 |
| 550 | 138.0 | 140.5 | 211.5 | 195.0 | 217.4 | 224.2 | 208.3 | 201.2 |
| 500 | 138.4 | 139.7 | 206.3 | 181.2 | 192.6 | 190.4 | 171.2 | 183.8 |
| 450 | 142.4 | 136.9 | | 169.8 | 156.5 | 152.0 | 131.0 | 170.2 |
| 400 | 144.7 | 137.8 | | 160.4 | 153.7 | 137.1 | 134.8 | 168.0 |
| 350 | 145.6 | 150.9 | | 159.8 | 160.7 | 123.9 | 159.8 | 204.3 |
| 300 | 149.0 | 167.1 | | 162.2 | 186.5 | 114.7 | 234.8 | 452.9 |
| LONG | -90.31 | -88.19 | -81.95 | -80.97 | -80.54 | -80.14 | -79.36 | -79.01 |
| LAT | 68.04 | 66.18 | 57.75 | 55.85 | 54.86 | 53.93 | 52.01 | 51.01 |
| QUAL | 33 | 33 | 32 | 33 | 21 | 23 | 21 | 21 |

PASS 4966 AT OTTAWA, 63 928

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 40525 | 40600 | 40635 | 40710 | 40745 | 40838 |
| 1000 | 0.009 | 0.021 | 0.029 | 0.024 | 0.062 | 0.084 |
| 950 | 0.015 | 0.026 | 0.035 | 0.029 | 0.068 | 0.091 |
| 900 | 0.017 | 0.030 | 0.039 | 0.033 | 0.074 | 0.097 |
| 850 | 0.020 | 0.034 | 0.044 | 0.037 | 0.079 | 0.106 |
| 800 | 0.024 | 0.039 | 0.049 | 0.043 | 0.088 | 0.117 |
| 750 | 0.028 | 0.045 | 0.055 | 0.050 | 0.098 | 0.130 |
| 700 | 0.034 | 0.055 | 0.062 | 0.059 | 0.112 | 0.146 |
| 650 | 0.042 | 0.068 | 0.073 | 0.070 | 0.133 | 0.170 |
| 600 | 0.056 | 0.086 | 0.091 | 0.084 | 0.168 | 0.214 |
| 550 | 0.077 | 0.118 | 0.129 | 0.106 | 0.231 | 0.301 |
| 500 | 0.115 | 0.180 | 0.173 | 0.152 | 0.342 | 0.470 |
| 450 | 0.179 | 0.290 | 0.260 | 0.246 | | 0.799 |
| 400 | 0.274 | 0.469 | 0.492 | 0.537 | | 1.291 |
| 350 | 0.408 | | 0.840 | | | |
| 300 | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | |
|---|---|---|---|---|---|---|
| 950 | 237.1 | 346.6 | 404.0 | 358.1 | 613.1 | 707.1 |
| 900 | 328.9 | 353.2 | 428.9 | 415.1 | 770.7 | 632.3 |
| 850 | 317.4 | 368.4 | 433.8 | 364.2 | 581.4 | 538.6 |
| 800 | 300.0 | 343.0 | 461.4 | 342.4 | 462.4 | 497.2 |
| 750 | 269.8 | 301.3 | 410.2 | 322.5 | 426.0 | 441.6 |
| 700 | 240.3 | 261.7 | 357.4 | 307.1 | 344.1 | 388.8 |
| 650 | 210.4 | 222.7 | 259.0 | 284.1 | 255.7 | 273.5 |
| 600 | 179.1 | 185.5 | 212.5 | 244.9 | 184.2 | 185.1 |
| 550 | 144.8 | 141.3 | 159.7 | 178.3 | 146.7 | 132.1 |
| 500 | 122.2 | 113.9 | 121.6 | 121.5 | 116.7 | 107.0 |
| 450 | 118.3 | 104.2 | 99.1 | 84.8 | | 93.4 |
| 400 | 121.4 | 107.7 | 88.8 | 66.1 | | 146.1 |
| 350 | 146.2 | | 114.9 | | | |
| 300 | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| LONG | -87.16 | -86.76 | -86.40 | -86.06 | -85.74 | -85.31 |
| LAT | 39.42 | 37.26 | 35.30 | 33.34 | 31.37 | 28.39 |
| QUAL | 13 | 23 | 23 | 33 | 33 | 22 |

PASS 4993 AT OTTAWA, 63 930

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 32907 | 32942 | 33035 | 33053 |
| 1000 | 0.006 | 0.003 | 0.002 | 0.003 |
| 950 | 0.013 | 0.009 | 0.005 | 0.005 |
| 900 | 0.017 | 0.012 | 0.008 | 0.007 |
| 850 | 0.022 | 0.017 | 0.011 | 0.009 |
| 800 | 0.028 | 0.022 | 0.015 | 0.013 |
| 750 | 0.037 | 0.028 | 0.020 | 0.018 |
| 700 | 0.049 | 0.036 | 0.027 | 0.025 |
| 650 | 0.068 | 0.047 | 0.038 | 0.035 |
| 600 | 0.094 | 0.064 | 0.052 | 0.048 |
| 550 | 0.137 | 0.090 | 0.073 | 0.062 |
| 500 | 0.194 | 0.131 | 0.105 | 0.090 |
| 450 | 0.288 | 0.200 | 0.158 | 0.128 |
| 400 | 0.416 | 0.305 | 0.241 | 0.180 |
| 350 | 0.588 | 0.435 | 0.367 | 0.253 |
| 300 | 0.775 | 0.547 | 0.514 | 0.357 |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 132.8 | 106.9 | 113.6 | 192.7 |
| 900 | 182.8 | 153.5 | 141.7 | 190.4 |
| 850 | 202.1 | 170.4 | 155.4 | 157.2 |
| 800 | 196.7 | 191.2 | 161.4 | 148.2 |
| 750 | 185.2 | 196.6 | 161.7 | 152.0 |
| 700 | 162.2 | 191.8 | 161.9 | 155.6 |
| 650 | 153.8 | 176.8 | 158.2 | 157.5 |
| 600 | 146.2 | 159.2 | 154.2 | 159.3 |
| 550 | 142.2 | 141.7 | 146.5 | 161.1 |
| 500 | 138.1 | 129.4 | 132.9 | 156.6 |
| 450 | 138.8 | 122.0 | 125.1 | 150.9 |
| 400 | 142.1 | 136.0 | 121.4 | 148.4 |
| 350 | 163.1 | 181.7 | 134.1 | 149.1 |
| 300 | 238.7 | 315.3 | 175.9 | 167.9 |
| LONG | -89.27 | -88.35 | -87.12 | -86.73 |
| LAT | 57.38 | 55.47 | 52.56 | 51.57 |
| QUAL | 22 | 21 | 21 | 22 |

PASS 4952 AT RESLUT, 63 927

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | |
|---|---|---|
| | 32449 | 32507 |
| 1000 | 0.019 | 0.009 |
| 950 | 0.023 | 0.013 |
| 900 | 0.028 | 0.018 |
| 850 | 0.033 | 0.022 |
| 800 | 0.040 | 0.028 |
| 750 | 0.051 | 0.036 |
| 700 | 0.064 | 0.047 |
| 650 | 0.081 | 0.062 |
| 600 | 0.102 | 0.080 |
| 550 | 0.131 | 0.101 |
| 500 | 0.168 | 0.145 |
| 450 | 0.290 | 0.220 |
| 400 | 0.399 | 0.341 |
| 350 | | 0.502 |
| 300 | | 0.664 |
| HEIGHT | SCALE HEIGHT, KM | |
| 950 | 269.7 | 163.9 |
| 900 | 265.4 | 182.3 |
| 850 | 255.2 | 194.3 |
| 800 | 241.7 | 202.3 |
| 750 | 224.9 | 195.2 |
| 700 | 212.7 | 188.4 |
| 650 | 206.6 | 185.5 |
| 600 | 200.5 | 182.7 |
| 550 | 178.1 | 179.8 |
| 500 | 131.6 | 142.4 |
| 450 | 142.1 | 122.4 |
| 400 | 182.6 | 127.7 |
| 350 | | 155.6 |
| 300 | | 239.4 |
| LONG | -78.67 | -78.33 |
| LAT | 50.08 | 49.08 |
| QUAL | 22 | 22 |

PASS 4952 AT SOLANT, 63 927

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | |
|---|---|---|---|---|---|---|
| | 35324 | 35358 | 35434 | 35630 | 35705 | 35753 |
| 1000 | 0.109 | 0.117 | 0.114 | 0.088 | 0.077 | 0.064 |
| 950 | 0.116 | 0.124 | 0.122 | 0.095 | 0.083 | 0.070 |
| 900 | 0.122 | 0.132 | 0.130 | 0.103 | 0.091 | 0.077 |
| 850 | 0.130 | 0.142 | 0.140 | 0.113 | 0.101 | 0.085 |
| 800 | 0.141 | 0.153 | 0.154 | 0.125 | 0.113 | 0.097 |
| 750 | 0.155 | 0.167 | 0.173 | 0.143 | 0.133 | 0.117 |
| 700 | 0.172 | 0.188 | 0.197 | 0.169 | 0.157 | 0.144 |
| 650 | 0.193 | 0.227 | 0.227 | 0.207 | 0.192 | 0.183 |
| 600 | 0.224 | 0.294 | 0.276 | 0.277 | 0.266 | 0.248 |
| 550 | 0.333 | 0.404 | 0.533 | 0.411 | 0.403 | 0.390 |
| 500 | 0.488 | 0.624 | 0.783 | 0.649 | 0.636 | 0.627 |
| 450 | 0.797 | 1.026 | 1.150 | 1.052 | 1.038 | 0.979 |
| 400 | 1.266 | 1.542 | 1.716 | 1.584 | 1.564 | 1.466 |
| 350 | | | | | | |
| 300 | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | |
|---|---|---|---|---|---|---|
| 950 | 909.5 | 821.2 | 805.0 | 612.7 | 577.5 | 529.0 |
| 900 | 803.8 | 752.4 | 679.5 | 546.8 | 507.5 | 471.4 |
| 850 | 702.3 | 677.0 | 577.1 | 493.6 | 444.5 | 409.1 |
| 800 | 604.5 | 597.2 | 480.1 | 440.5 | 382.6 | 349.9 |
| 750 | 514.3 | 510.1 | 413.0 | 375.4 | 332.5 | 300.6 |
| 700 | 446.7 | 365.0 | 353.7 | 297.1 | 282.5 | 251.3 |
| 650 | 379.1 | 246.8 | 294.4 | 223.4 | 223.4 | 199.8 |
| 600 | 267.1 | 180.0 | 230.3 | 161.6 | 135.4 | 144.0 |
| 550 | 120.9 | 139.6 | 111.3 | 126.8 | 122.3 | 119.9 |
| 500 | 116.9 | 107.3 | 123.4 | 109.9 | 110.6 | 111.8 |
| 450 | 102.0 | 110.2 | 115.6 | 111.8 | 112.3 | 118.1 |
| 400 | 133.2 | 156.3 | 163.2 | 153.4 | 147.7 | 163.8 |
| 350 | | | | | | |
| 300 | | | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| LONG | -64.30 | -63.78 | -63.13 | -60.59 | -59.66 | -58.13 |
| LAT | -46.12 | -47.98 | -49.94 | -56.22 | -58.11 | -60.66 |
| QUAL | 21 | 12 | 12 | 31 | 31 | 32 |

PASS 5427 AT RESLUT, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 224022 | 224038 | 224057 | 224114 | 224132 | 224150 | 224207 | 224225 |
| 1000 | 0.062 | 0.079 | 0.096 | 0.064 | 0.137 | 0.040 | 0.070 | 0.068 |
| 950 | 0.070 | 0.094 | 0.108 | 0.078 | 0.164 | 0.051 | 0.082 | 0.081 |
| 900 | 0.079 | 0.110 | 0.120 | 0.092 | 0.191 | 0.062 | 0.095 | 0.094 |
| 850 | 0.090 | 0.126 | 0.134 | 0.107 | 0.218 | 0.070 | 0.109 | 0.106 |
| 800 | 0.103 | 0.146 | 0.150 | 0.124 | 0.243 | 0.081 | 0.123 | 0.119 |
| 750 | 0.119 | 0.171 | 0.170 | 0.146 | 0.272 | 0.099 | 0.140 | 0.134 |
| 700 | 0.137 | 0.205 | 0.199 | 0.174 | 0.310 | 0.121 | 0.160 | 0.153 |
| 650 | 0.158 | 0.259 | 0.243 | 0.210 | 0.360 | 0.151 | 0.183 | 0.178 |
| 600 | 0.183 | 0.344 | 0.307 | 0.259 | 0.429 | 0.200 | 0.211 | 0.211 |
| 550 | 0.220 | 0.468 | 0.396 | 0.334 | 0.530 | 0.271 | 0.247 | 0.255 |
| 500 | 0.276 | 0.641 | 0.510 | 0.444 | 0.665 | 0.362 | 0.294 | 0.318 |
| 450 | 0.365 | 0.866 | 0.656 | 0.599 | 0.830 | 0.460 | 0.364 | 0.397 |
| 400 | 0.506 | 1.057 | 0.822 | 0.791 | 1.025 | | 0.483 | 0.497 |
| 350 | 0.732 | | | 1.017 | 1.245 | | 0.671 | 0.624 |
| 300 | 1.106 | | | | | | 0.922 | 0.774 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 427.9 | 305.1 | 467.8 | 288.3 | 306.5 | 237.5 | 335.6 | 333.6 |
| 900 | 382.0 | 341.4 | 464.5 | 327.8 | 348.9 | 327.1 | 361.3 | 385.1 |
| 850 | 377.2 | 353.1 | 453.0 | 322.7 | 422.2 | 353.4 | 379.9 | 421.5 |
| 800 | 368.4 | 330.4 | 416.8 | 312.0 | 445.9 | 301.7 | 388.4 | 423.7 |
| 750 | 359.0 | 292.8 | 360.5 | 298.4 | 408.5 | 251.2 | 381.4 | 389.4 |
| 700 | 353.9 | 249.9 | 278.5 | 277.9 | 357.9 | 234.1 | 373.6 | 348.2 |
| 650 | 335.7 | 194.5 | 241.2 | 250.8 | 312.2 | 206.6 | 365.9 | 317.7 |
| 600 | 303.8 | 169.7 | 202.6 | 217.2 | 264.7 | 173.2 | 334.4 | 284.8 |
| 550 | 253.3 | 163.1 | 198.9 | 191.0 | 227.3 | 172.8 | 304.1 | 251.7 |
| 500 | 196.5 | 165.1 | 200.8 | 180.0 | 225.1 | 192.6 | 266.2 | 227.0 |
| 450 | 162.0 | 199.9 | 209.4 | 178.5 | 233.1 | 222.7 | 205.0 | 221.9 |
| 400 | 148.7 | 417.6 | 235.2 | 193.2 | 250.0 | | 162.9 | 222.3 |
| 350 | 132.7 | | | 207.6 | 285.2 | | 153.3 | 227.7 |
| 300 | 130.9 | | | | | | 174.9 | 248.6 |
| LONG | -111.06 | -108.31 | -105.05 | -102.85 | -100.68 | -98.51 | -96.70 | -95.14 |
| LAT | 76.88 | 76.24 | 75.49 | 74.74 | 73.92 | 73.10 | 72.31 | 71.43 |
| QUAL | 32 | 22 | 32 | 32 | 32 | 32 | 32 | 22 |

PASS 5427 AT RESLUT, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 224243 | 224301 | 224318 | 224336 | 224354 | 224409 | 224429 | 224447 |
| 1000 | 0.095 | 0.078 | 0.075 | 0.072 | 0.199 | 0.150 | 0.154 | 0.156 |
| 950 | 0.108 | 0.091 | 0.087 | 0.086 | 0.260 | 0.184 | 0.184 | 0.194 |
| 900 | 0.120 | 0.104 | 0.098 | 0.099 | 0.298 | 0.214 | 0.219 | 0.228 |
| 850 | 0.135 | 0.114 | 0.109 | 0.113 | 0.341 | 0.249 | 0.263 | 0.263 |
| 800 | 0.154 | 0.126 | 0.122 | 0.126 | 0.388 | 0.290 | 0.316 | 0.307 |
| 750 | 0.174 | 0.142 | 0.135 | 0.140 | 0.448 | 0.341 | 0.379 | 0.364 |
| 700 | 0.196 | 0.162 | 0.151 | 0.155 | 0.523 | 0.398 | 0.462 | 0.439 |
| 650 | 0.224 | 0.185 | 0.170 | 0.172 | 0.619 | 0.472 | 0.576 | 0.536 |
| 600 | 0.258 | 0.216 | 0.197 | 0.192 | 0.742 | 0.568 | 0.729 | 0.672 |
| 550 | 0.301 | 0.256 | 0.234 | 0.220 | 0.905 | 0.704 | 0.938 | 0.868 |
| 500 | 0.356 | 0.306 | 0.288 | 0.259 | 1.141 | 0.880 | 1.234 | 1.158 |
| 450 | 0.434 | 0.376 | 0.367 | 0.321 | 1.461 | 1.134 | 1.665 | 1.565 |
| 400 | 0.564 | 0.469 | 0.486 | 0.426 | 1.943 | 1.451 | 2.257 | 2.119 |
| 350 | 0.839 | 0.596 | 0.679 | 0.612 | 2.605 | 1.935 | 2.945 | 2.871 |
| 300 | 1.244 | 0.759 | 0.976 | 0.890 | 3.401 | 2.642 | | 3.681 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 445.3 | 352.0 | 380.7 | 318.4 | 336.3 | 292.4 | 278.2 | 266.7 |
| 900 | 427.2 | 463.6 | 436.7 | 374.6 | 364.8 | 328.6 | 281.0 | 328.4 |
| 850 | 410.3 | 504.3 | 454.5 | 417.4 | 370.7 | 324.5 | 271.4 | 331.2 |
| 800 | 403.0 | 464.8 | 473.3 | 456.5 | 368.2 | 321.4 | 276.9 | 310.1 |
| 750 | 411.4 | 409.0 | 467.5 | 493.0 | 333.2 | 317.8 | 262.6 | 280.0 |
| 700 | 386.4 | 370.2 | 435.1 | 502.0 | 307.0 | 301.5 | 237.8 | 254.5 |
| 650 | 363.3 | 346.5 | 383.1 | 468.6 | 286.0 | 278.0 | 221.7 | 238.6 |
| 600 | 340.6 | 314.2 | 315.3 | 406.7 | 261.9 | 255.1 | 211.5 | 212.7 |
| 550 | 316.9 | 286.4 | 265.2 | 341.5 | 234.3 | 233.9 | 193.4 | 186.3 |
| 500 | 273.7 | 263.7 | 227.8 | 262.4 | 213.9 | 214.6 | 176.4 | 170.8 |
| 450 | 227.2 | 241.4 | 195.3 | 210.6 | 195.6 | 204.7 | 168.5 | 167.8 |
| 400 | 161.6 | 220.1 | 165.8 | 157.5 | 183.3 | 194.9 | 176.0 | 163.5 |
| 350 | 121.3 | 208.4 | 145.9 | 136.5 | 179.1 | 171.7 | 204.4 | 176.6 |
| 300 | 144.4 | 209.7 | 139.8 | 136.6 | 213.9 | 159.7 | | 266.2 |
| LONG | -93.58 | -92.05 | -90.95 | -89.80 | -88.64 | -87.82 | -86.84 | -85.96 |
| LAT | 70.56 | 69.68 | 68.81 | 67.90 | 66.98 | 66.21 | 65.16 | 64.22 |
| QUAL | 32 | 32 | 32 | 32 | 22 | 32 | 22 | 22 |

PASS 5427 AT RESLUT, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 224504 | 224522 | 224540 | 224557 | 224615 | 224633 | 224650 | 224708 |
| 1000 | 0.189 | 0.161 | 0.064 | 0.040 | 0.027 | 0.032 | 0.044 | 0.060 |
| 950 | 0.222 | 0.185 | 0.079 | 0.060 | 0.041 | 0.046 | 0.058 | 0.077 |
| 900 | 0.259 | 0.215 | 0.095 | 0.081 | 0.055 | 0.062 | 0.071 | 0.095 |
| 850 | 0.305 | 0.251 | 0.117 | 0.105 | 0.072 | 0.083 | 0.087 | 0.117 |
| 800 | 0.360 | 0.298 | 0.148 | 0.133 | 0.096 | 0.111 | 0.109 | 0.144 |
| 750 | 0.433 | 0.366 | 0.186 | 0.170 | 0.128 | 0.146 | 0.139 | 0.178 |
| 700 | 0.523 | 0.451 | 0.241 | 0.219 | 0.169 | 0.192 | 0.180 | 0.222 |
| 650 | 0.640 | 0.560 | 0.315 | 0.284 | 0.228 | 0.258 | 0.241 | 0.282 |
| 600 | 0.798 | 0.708 | 0.418 | 0.377 | 0.303 | 0.345 | 0.323 | 0.367 |
| 550 | 1.010 | 0.900 | 0.561 | 0.511 | 0.413 | 0.475 | 0.445 | 0.497 |
| 500 | 1.292 | 1.163 | 0.755 | 0.711 | 0.575 | 0.673 | 0.639 | 0.698 |
| 450 | 1.677 | 1.532 | 1.040 | 0.983 | 0.816 | 0.986 | 0.939 | 1.007 |
| 400 | 2.164 | 2.047 | 1.466 | 1.426 | 1.169 | 1.476 | 1.423 | 1.487 |
| 350 | 2.707 | 2.690 | 2.031 | 1.951 | 1.708 | 2.179 | 2.128 | 2.204 |
| 300 | | | 2.665 | 2.489 | 2.304 | | | 3.047 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 317.5 | 343.8 | 263.6 | 145.8 | 149.7 | 156.0 | 215.8 | 218.4 |
| 900 | 312.3 | 324.2 | 249.9 | 175.9 | 177.4 | 169.2 | 244.5 | 237.4 |
| 850 | 302.8 | 297.6 | 224.4 | 194.2 | 179.2 | 173.8 | 237.4 | 238.9 |
| 800 | 291.5 | 271.6 | 212.1 | 203.9 | 173.1 | 176.9 | 210.1 | 236.6 |
| 750 | 268.8 | 251.4 | 206.2 | 200.6 | 174.1 | 177.1 | 194.1 | 230.4 |
| 700 | 255.6 | 234.8 | 196.7 | 193.8 | 175.2 | 174.8 | 183.6 | 217.7 |
| 650 | 237.0 | 222.4 | 185.1 | 185.9 | 176.2 | 171.5 | 176.1 | 197.0 |
| 600 | 221.7 | 213.1 | 173.8 | 178.0 | 173.5 | 167.9 | 165.3 | 178.7 |
| 550 | 210.1 | 203.2 | 170.4 | 152.8 | 153.6 | 153.3 | 147.2 | 159.4 |
| 500 | 198.0 | 189.9 | 168.1 | 155.3 | 150.2 | 138.7 | 138.8 | 145.7 |
| 450 | 195.6 | 177.3 | 150.6 | 147.7 | 144.1 | 130.2 | 125.1 | 135.2 |
| 400 | 206.9 | 176.7 | 152.4 | 139.3 | 135.7 | 127.0 | 122.2 | 128.1 |
| 350 | 254.3 | 211.4 | 167.4 | 185.3 | 141.5 | 132.1 | 133.3 | 135.1 |
| 300 | | | 214.2 | 220.3 | 221.1 | | | 226.3 |
| LONG | -85.18 | -84.49 | -83.80 | -83.14 | -82.57 | -82.02 | -81.50 | -80.99 |
| LAT | 63.33 | 62.37 | 61.41 | 60.51 | 59.54 | 58.57 | 57.66 | 56.68 |
| QUAL | 22 | 22 | 22 | 32 | 22 | 22 | 12 | 11 |

PASS 5427 AT RESLUT, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 224726 | 224743 | 224801 | 224820 | 224836 | 224854 | 224912 | 224939 |
| 1000 | 0.070 | 0.061 | 0.060 | 0.058 | 0.057 | 0.060 | 0.063 | 0.063 |
| 950 | 0.081 | 0.074 | 0.074 | 0.073 | 0.068 | 0.073 | 0.081 | 0.076 |
| 900 | 0.097 | 0.090 | 0.087 | 0.088 | 0.082 | 0.088 | 0.098 | 0.091 |
| 850 | 0.117 | 0.109 | 0.105 | 0.106 | 0.100 | 0.105 | 0.116 | 0.108 |
| 800 | 0.141 | 0.132 | 0.127 | 0.128 | 0.122 | 0.128 | 0.137 | 0.130 |
| 750 | 0.172 | 0.162 | 0.156 | 0.157 | 0.151 | 0.157 | 0.166 | 0.157 |
| 700 | 0.213 | 0.201 | 0.193 | 0.195 | 0.188 | 0.195 | 0.204 | 0.193 |
| 650 | 0.269 | 0.255 | 0.246 | 0.247 | 0.239 | 0.247 | 0.255 | 0.242 |
| 600 | 0.351 | 0.331 | 0.318 | 0.322 | 0.312 | 0.320 | 0.328 | 0.310 |
| 550 | 0.479 | 0.441 | 0.423 | 0.434 | 0.417 | 0.432 | 0.432 | 0.415 |
| 500 | 0.664 | 0.606 | 0.576 | 0.603 | 0.576 | 0.604 | 0.607 | 0.573 |
| 450 | 0.949 | 0.851 | 0.819 | 0.875 | 0.842 | 0.863 | 0.873 | 0.822 |
| 400 | 1.388 | 1.232 | 1.189 | 1.300 | 1.266 | 1.292 | 1.316 | 1.206 |
| 350 | 2.046 | 1.831 | 1.774 | 1.932 | 1.927 | 1.935 | 1.992 | 1.821 |
| 300 | 2.907 | 2.644 | 2.608 | | 2.838 | 2.813 | 2.846 | 2.699 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 307.8 | 258.6 | 269.2 | 246.0 | 266.4 | 263.7 | 229.8 | 273.1 |
| 900 | 280.0 | 261.6 | 282.8 | 272.3 | 265.4 | 272.2 | 282.5 | 280.7 |
| 850 | 268.2 | 258.0 | 266.3 | 264.9 | 252.6 | 261.2 | 300.3 | 277.3 |
| 800 | 261.0 | 248.6 | 247.6 | 250.4 | 241.1 | 246.1 | 277.1 | 269.0 |
| 750 | 241.8 | 237.6 | 234.9 | 237.7 | 232.0 | 235.6 | 256.1 | 251.1 |
| 700 | 220.7 | 219.7 | 225.5 | 223.0 | 219.2 | 223.0 | 233.0 | 229.3 |
| 650 | 204.1 | 204.3 | 204.3 | 202.2 | 200.4 | 205.3 | 208.4 | 208.4 |
| 600 | 175.5 | 186.0 | 183.8 | 179.0 | 180.2 | 180.6 | 186.5 | 188.3 |
| 550 | 162.0 | 165.3 | 167.8 | 159.9 | 162.2 | 158.5 | 166.1 | 166.9 |
| 500 | 154.0 | 153.5 | 155.6 | 147.3 | 146.6 | 151.0 | 150.5 | 151.1 |
| 450 | 134.0 | 144.0 | 142.4 | 132.7 | 131.6 | 133.4 | 137.1 | 142.0 |
| 400 | 134.5 | 132.0 | 131.6 | 128.0 | 120.8 | 124.8 | 122.0 | 128.6 |
| 350 | 131.7 | 125.8 | 123.2 | 131.6 | 120.0 | 125.8 | 130.3 | 119.6 |
| 300 | 194.4 | 162.6 | 164.4 | | 167.0 | 171.1 | 157.8 | 165.1 |
| LONG | -80.54 | -80.11 | -79.66 | -79.26 | -78.93 | -78.55 | -78.22 | -77.75 |
| LAT | 55.70 | 54.78 | 53.80 | 52.76 | 51.88 | 50.90 | 49.91 | 48.42 |
| QUAL | 11 | 12 | 12 | 13 | 12 | 12 | 22 | 32 |

PASS 5427 AT OTTAWA, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 224427 | 224503 | 224538 | 224613 | 224649 | 224724 | 224759 | 224835 |
| 1000 | 0.150 | 0.190 | 0.068 | 0.029 | 0.044 | 0.062 | 0.058 | 0.056 |
| 950 | 0.178 | 0.217 | 0.080 | 0.041 | 0.055 | 0.074 | 0.072 | 0.067 |
| 900 | 0.210 | 0.248 | 0.095 | 0.052 | 0.067 | 0.088 | 0.085 | 0.081 |
| 850 | 0.248 | 0.286 | 0.114 | 0.068 | 0.082 | 0.106 | 0.102 | 0.097 |
| 800 | 0.294 | 0.334 | 0.138 | 0.087 | 0.101 | 0.129 | 0.124 | 0.118 |
| 750 | 0.352 | 0.395 | 0.171 | 0.112 | 0.127 | 0.158 | 0.150 | 0.145 |
| 700 | 0.426 | 0.475 | 0.214 | 0.147 | 0.163 | 0.196 | 0.184 | 0.179 |
| 650 | 0.526 | 0.584 | 0.273 | 0.191 | 0.214 | 0.248 | 0.229 | 0.227 |
| 600 | 0.661 | 0.731 | 0.349 | 0.256 | 0.292 | 0.324 | 0.293 | 0.292 |
| 550 | 0.854 | 0.921 | 0.458 | 0.349 | 0.399 | 0.435 | 0.386 | 0.389 |
| 500 | 1.134 | 1.176 | 0.610 | 0.484 | 0.571 | 0.598 | 0.530 | 0.541 |
| 450 | 1.519 | 1.510 | 0.834 | 0.686 | 0.839 | 0.844 | 0.743 | 0.771 |
| 400 | 2.073 | 1.963 | 1.151 | 0.981 | 1.267 | 1.232 | 1.071 | 1.150 |
| 350 | 2.780 | 2.577 | 1.608 | 1.452 | 1.920 | 1.863 | 1.561 | 1.752 |
| 300 | | | 2.286 | 2.083 | 2.815 | 2.721 | 2.181 | 2.631 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 289.9 | 367.2 | 309.7 | 184.4 | 228.9 | 288.0 | 285.1 | 270.0 |
| 900 | 297.4 | 358.5 | 291.5 | 198.2 | 246.3 | 280.3 | 286.6 | 273.6 |
| 850 | 295.8 | 338.4 | 266.0 | 195.3 | 238.7 | 258.2 | 263.8 | 259.3 |
| 800 | 285.9 | 314.2 | 246.1 | 195.8 | 229.5 | 245.5 | 257.1 | 246.6 |
| 750 | 267.5 | 282.9 | 228.0 | 190.3 | 213.2 | 237.3 | 252.0 | 236.8 |
| 700 | 248.5 | 256.5 | 211.8 | 185.7 | 191.4 | 224.2 | 236.3 | 228.0 |
| 650 | 229.9 | 235.8 | 202.5 | 180.5 | 170.8 | 201.8 | 214.2 | 208.3 |
| 600 | 208.4 | 220.1 | 196.5 | 168.6 | 163.1 | 179.4 | 193.3 | 186.1 |
| 550 | 186.4 | 211.0 | 182.6 | 159.0 | 154.0 | 164.1 | 168.3 | 163.4 |
| 500 | 179.4 | 205.6 | 168.3 | 151.8 | 139.7 | 156.6 | 158.2 | 151.9 |
| 450 | 168.5 | 197.3 | 162.2 | 144.0 | 127.3 | 140.5 | 145.7 | 136.3 |
| 400 | 165.7 | 187.8 | 154.5 | 136.4 | 120.4 | 127.9 | 136.1 | 122.7 |
| 350 | 185.5 | 186.7 | 145.9 | 132.5 | 125.0 | 124.6 | 141.3 | 118.9 |
| 300 | | | 145.2 | 166.1 | 156.6 | 156.6 | 168.8 | 150.4 |
| LONG | -86.94 | -85.21 | -83.87 | -82.63 | -81.53 | -80.59 | -79.71 | -78.95 |
| LAT | 65.27 | 63.38 | 61.52 | 59.65 | 57.71 | 55.81 | 53.90 | 51.94 |
| QUAL | 32 | 22 | 32 | 22 | 12 | 12 | 13 | 12 |

PASS 5427 AT QUITOE, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | |
|---|---|---|---|---|---|---|---|
| | 225906 | 230055 | 230130 | 230205 | 230241 | 230316 | 230351 |
| 1000 | 0.113 | 0.111 | 0.134 | 0.139 | 0.152 | 0.165 | 0.166 |
| 950 | 0.117 | 0.124 | 0.145 | 0.149 | 0.162 | 0.174 | 0.177 |
| 900 | 0.124 | 0.136 | 0.155 | 0.161 | 0.172 | 0.196 | 0.193 |
| 850 | 0.135 | 0.147 | 0.169 | 0.176 | 0.182 | 0.219 | 0.221 |
| 800 | 0.144 | 0.160 | 0.188 | 0.196 | 0.224 | 0.242 | 0.256 |
| 750 | 0.161 | 0.174 | 0.216 | 0.229 | 0.269 | 0.266 | 0.296 |
| 700 | 0.190 | 0.190 | 0.251 | 0.269 | 0.302 | 0.290 | 0.358 |
| 650 | 0.219 | 0.247 | 0.294 | 0.322 | 0.385 | 0.316 | 0.505 |
| 600 | 0.259 | 0.324 | 0.385 | 0.424 | 0.591 | 0.687 | 0.698 |
| 550 | 0.339 | 0.408 | 0.515 | 0.580 | 0.779 | 0.900 | 0.987 |
| 500 | 0.461 | 0.502 | 0.741 | 0.850 | 1.195 | 1.292 | 1.712 |
| 450 | 0.675 | 0.909 | 1.157 | 1.343 | 2.053 | 2.371 | 3.393 |
| 400 | 1.016 | 1.408 | 1.891 | 2.386 | 3.625 | 4.294 | 7.250 |
| 350 | 1.577 | 2.585 | 3.316 | 4.461 | 6.226 | 8.232 | 12.864 |
| 300 | | | 6.001 | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | |
|---|---|---|---|---|---|---|---|
| 950 | 1658.0 | 499.6 | 682.2 | 671.7 | 805.7 | 654.4 | 649.0 |
| 900 | 770.4 | 591.7 | 627.4 | 590.1 | 678.5 | 486.8 | 508.1 |
| 850 | 622.8 | 584.3 | 539.5 | 505.2 | 551.3 | 437.2 | 358.1 |
| 800 | 569.1 | 523.8 | 428.4 | 425.5 | 364.4 | 408.7 | 312.1 |
| 750 | 449.7 | 463.2 | 335.4 | 355.2 | 297.5 | 380.2 | 278.8 |
| 700 | 323.5 | 402.6 | 297.4 | 288.9 | 280.6 | 351.7 | 238.1 |
| 650 | 309.7 | 274.7 | 259.5 | 230.8 | 224.1 | 323.2 | 175.3 |
| 600 | 228.3 | 190.4 | 211.7 | 190.7 | 143.7 | 114.2 | 147.8 |
| 550 | 178.7 | 176.7 | 162.3 | 154.3 | 140.0 | 127.4 | 120.1 |
| 500 | 146.3 | 163.1 | 129.9 | 129.6 | 111.7 | 101.2 | 84.0 |
| 450 | 130.3 | 97.9 | 103.8 | 98.1 | 94.6 | 87.1 | 68.1 |
| 400 | 118.8 | 98.9 | 98.5 | 81.3 | 86.5 | 81.7 | 77.6 |
| 350 | 162.9 | 81.6 | 85.8 | 80.2 | 98.5 | 79.4 | 118.6 |
| 300 | | | 95.4 | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| LONG | -72.13 | -71.51 | -71.31 | -71.12 | -70.93 | -70.75 | -70.57 |
| LAT | 16.79 | 10.68 | 8.71 | 6.74 | 4.72 | 2.75 | 0.79 |
| QUAL | 33 | 23 | 23 | 13 | 13 | 13 | 23 |

PASS 5427 AT QUITOE, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 230427 | 230502 | 230537 | 230613 | 230658 | 230741 | 230816 | 230834 |
| 1000 | 0.172 | 0.180 | 0.169 | 0.181 | 0.186 | 0.187 | 0.193 | 0.193 |
| 950 | 0.183 | 0.198 | 0.192 | 0.197 | 0.197 | 0.203 | 0.221 | 0.214 |
| 900 | 0.199 | 0.221 | 0.216 | 0.230 | 0.228 | 0.233 | 0.251 | 0.240 |
| 850 | 0.246 | 0.250 | 0.246 | 0.274 | 0.359 | 0.283 | 0.300 | 0.293 |
| 800 | 0.294 | 0.293 | 0.292 | 0.317 | 0.407 | 0.337 | 0.384 | 0.381 |
| 750 | 0.332 | 0.355 | 0.353 | 0.399 | 0.565 | 0.508 | 0.501 | 0.507 |
| 700 | 0.434 | 0.470 | 0.482 | 0.635 | 0.790 | 0.781 | 0.725 | 0.763 |
| 650 | 0.598 | 0.647 | 0.702 | 0.899 | 1.130 | 1.115 | 1.121 | 1.203 |
| 600 | 0.821 | 0.940 | 1.203 | 1.389 | 1.990 | 1.854 | 1.867 | 1.836 |
| 550 | 1.101 | 1.666 | 2.123 | 2.689 | 3.436 | 3.287 | 3.237 | 3.078 |
| 500 | 2.058 | 3.331 | 3.832 | 5.036 | 5.930 | 5.840 | 5.815 | 5.469 |
| 450 | 4.261 | 6.809 | 7.233 | 8.653 | 9.629 | 9.808 | 9.800 | 9.339 |
| 400 | 8.936 | 11.858 | 12.420 | 12.980 | | | | |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 674.3 | 487.4 | 405.9 | 475.4 | 696.4 | 500.7 | 403.9 | 444.1 |
| 900 | 465.2 | 429.2 | 383.8 | 355.2 | 374.5 | 342.4 | 332.7 | 348.5 |
| 850 | 328.4 | 369.6 | 329.2 | 289.5 | 228.3 | 247.5 | 259.4 | 261.0 |
| 800 | 285.5 | 308.6 | 277.7 | 255.9 | 223.0 | 208.4 | 194.7 | 185.6 |
| 750 | 271.4 | 211.1 | 226.0 | 204.1 | 165.7 | 141.5 | 159.9 | 153.0 |
| 700 | 214.3 | 182.5 | 171.7 | 122.5 | 141.0 | 121.9 | 134.7 | 128.2 |
| 650 | 157.9 | 152.2 | 119.9 | 120.2 | 120.6 | 119.6 | 112.2 | 112.3 |
| 600 | 144.4 | 115.6 | 84.7 | 98.5 | 91.6 | 95.1 | 95.9 | 109.1 |
| 550 | 130.9 | 80.5 | 88.7 | 78.8 | 93.0 | 86.7 | 90.3 | 89.4 |
| 500 | 70.4 | 63.2 | 83.3 | 83.7 | 97.2 | 91.7 | 87.7 | 90.0 |
| 450 | 65.1 | 81.1 | 81.4 | 104.7 | 125.1 | 131.5 | 121.5 | 104.3 |
| 400 | 77.1 | 94.6 | 131.8 | 198.3 | | | | |
| 350 | | | | | | | | |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -70.38 | -70.20 | -70.01 | -69.82 | -69.58 | -69.34 | -69.14 | -69.03 |
| LAT | -1.23 | -3.19 | -5.16 | -7.18 | -9.70 | -12.11 | -14.08 | -15.08 |
| QUAL | 13 | 13 | 12 | 12 | 22 | 12 | 12 | 22 |

PASS 5427 AT QUITOE, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | |
|---|---|---|---|---|
| | 230851 | 230927 | 231040 | 231115 |
| 1000 | 0.194 | 0.194 | 0.189 | 0.185 |
| 950 | 0.218 | 0.220 | 0.200 | 0.196 |
| 900 | 0.247 | 0.250 | 0.216 | 0.211 |
| 850 | 0.286 | 0.285 | 0.277 | 0.239 |
| 800 | 0.354 | 0.338 | 0.331 | 0.280 |
| 750 | 0.484 | 0.414 | 0.383 | 0.339 |
| 700 | 0.693 | 0.545 | 0.482 | 0.425 |
| 650 | 1.047 | 0.787 | 0.651 | 0.557 |
| 600 | 1.728 | 1.224 | 0.991 | 0.803 |
| 550 | 3.074 | 2.058 | 1.662 | 1.249 |
| 500 | 5.443 | 3.922 | 3.070 | 2.171 |
| 450 | 9.091 | 6.774 | 5.631 | 4.545 |
| 400 | | 10.509 | 8.767 | 7.898 |
| 350 | | | 12.758 | 11.374 |
| 300 | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | |
| 950 | 426.8 | 444.0 | 702.1 | 774.6 |
| 900 | 365.2 | 381.8 | 482.5 | 609.3 |
| 850 | 295.0 | 337.7 | 288.6 | 382.5 |
| 800 | 203.8 | 279.1 | 279.0 | 294.6 |
| 750 | 163.3 | 222.7 | 267.7 | 257.5 |
| 700 | 133.8 | 173.0 | 193.7 | 194.1 |
| 650 | 112.8 | 132.7 | 146.2 | 170.9 |
| 600 | 96.1 | 103.2 | 111.5 | 132.4 |
| 550 | 85.5 | 87.7 | 90.4 | 99.1 |
| 500 | 94.3 | 83.4 | 79.8 | 82.0 |
| 450 | 108.3 | 105.5 | 97.9 | 75.0 |
| 400 | | 127.1 | 123.4 | 115.5 |
| 350 | | | 151.2 | 152.0 |
| 300 | | | | |
| LONG | -68.93 | -68.71 | -68.24 | -68.00 |
| LAT | -16.04 | -18.05 | -22.13 | -23.30 |
| QUAL | 12 | 13 | 13 | 13 |

PASS 5427 AT AGASTA, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 231039 | 231114 | 231150 | 231225 | 231300 | 231326 | 231411 | 231446 |
| 1000 | 0.188 | 0.186 | 0.188 | 0.187 | 0.186 | 0.185 | 0.185 | 0.183 |
| 950 | 0.207 | 0.200 | 0.199 | 0.199 | 0.196 | 0.195 | 0.200 | 0.197 |
| 900 | 0.231 | 0.219 | 0.214 | 0.219 | 0.210 | 0.209 | 0.229 | 0.222 |
| 850 | 0.269 | 0.264 | 0.251 | 0.241 | 0.235 | 0.226 | 0.265 | 0.260 |
| 800 | 0.317 | 0.318 | 0.292 | 0.265 | 0.299 | 0.256 | 0.301 | 0.297 |
| 750 | 0.385 | 0.375 | 0.337 | 0.305 | 0.361 | 0.332 | 0.357 | 0.351 |
| 700 | 0.495 | 0.465 | 0.436 | 0.384 | 0.413 | 0.397 | 0.443 | 0.436 |
| 650 | 0.706 | 0.616 | 0.635 | 0.484 | 0.458 | 0.456 | 0.546 | 0.545 |
| 600 | 1.170 | 0.906 | 0.856 | 0.622 | 0.591 | 0.526 | 0.716 | 0.752 |
| 550 | 2.172 | 1.443 | 1.156 | 1.043 | 0.921 | 0.820 | 1.003 | 1.057 |
| 500 | 3.733 | 3.049 | 2.184 | 1.627 | 1.231 | 1.153 | 1.431 | 1.519 |
| 450 | 6.548 | 5.436 | 4.500 | 2.951 | 2.221 | 1.788 | 2.064 | 2.220 |
| 400 | 10.066 | 8.897 | 7.608 | 5.265 | 3.745 | 3.035 | 3.360 | 3.574 |
| 350 | | 12.764 | 11.267 | 9.270 | 7.325 | 5.700 | 5.518 | 5.488 |
| 300 | | | | | | | 8.232 | 7.176 |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 486.7 | 607.4 | 762.1 | 679.5 | 799.1 | 810.2 | 514.6 | 561.4 |
| 900 | 414.3 | 446.0 | 556.0 | 510.8 | 629.9 | 686.7 | 387.5 | 420.9 |
| 850 | 332.7 | 324.6 | 357.3 | 462.8 | 469.2 | 563.2 | 341.9 | 336.5 |
| 800 | 281.5 | 281.5 | 297.0 | 414.9 | 331.4 | 419.5 | 322.8 | 318.8 |
| 750 | 233.0 | 267.6 | 263.8 | 323.7 | 289.8 | 248.6 | 289.7 | 279.1 |
| 700 | 176.9 | 202.8 | 210.2 | 208.6 | 280.6 | 244.9 | 248.7 | 226.3 |
| 650 | 123.7 | 159.1 | 148.6 | 186.0 | 271.4 | 241.1 | 208.9 | 182.7 |
| 600 | 93.4 | 121.2 | 142.6 | 160.5 | 192.3 | 229.6 | 179.4 | 168.3 |
| 550 | 86.9 | 90.1 | 128.4 | 104.9 | 118.9 | 150.0 | 156.2 | 155.2 |
| 500 | 91.7 | 76.9 | 71.3 | 99.9 | 122.5 | 131.6 | 138.8 | 139.3 |
| 450 | 101.5 | 93.2 | 80.7 | 83.8 | 91.7 | 109.2 | 122.8 | 120.8 |
| 400 | 125.6 | 120.8 | 111.7 | 86.8 | 83.7 | 90.0 | 103.5 | 111.3 |
| 350 | | 157.6 | 148.2 | 105.5 | 81.4 | 80.9 | 111.5 | 151.1 |
| 300 | | | | | | | 221.6 | 251.4 |
| LONG | -68.25 | -68.01 | -67.75 | -67.48 | -67.21 | -66.98 | -66.58 | -66.25 |
| LAT | -22.08 | -24.03 | -26.03 | -27.99 | -29.94 | -31.38 | -33.88 | -35.82 |
| QUAL | 13 | 13 | 13 | 13 | 13 | 13 | 12 | 12 |

PASS 5427 AT AGASTA, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 231521 | 231547 | 231632 | 231707 | 231742 | 231818 | 231846 | 231928 |
| 1000 | 0.186 | 0.184 | 0.182 | 0.180 | 0.178 | 0.182 | 0.183 | 0.185 |
| 950 | 0.211 | 0.209 | 0.208 | 0.207 | 0.205 | 0.213 | 0.214 | 0.230 |
| 900 | 0.243 | 0.241 | 0.237 | 0.245 | 0.242 | 0.248 | 0.250 | 0.259 |
| 850 | 0.276 | 0.275 | 0.274 | 0.283 | 0.282 | 0.289 | 0.291 | 0.297 |
| 800 | 0.323 | 0.325 | 0.322 | 0.332 | 0.329 | 0.340 | 0.342 | 0.348 |
| 750 | 0.388 | 0.389 | 0.387 | 0.399 | 0.394 | 0.407 | 0.412 | 0.425 |
| 700 | 0.478 | 0.475 | 0.471 | 0.490 | 0.480 | 0.511 | 0.499 | 0.523 |
| 650 | 0.591 | 0.582 | 0.572 | 0.611 | 0.593 | 0.650 | 0.621 | 0.669 |
| 600 | 0.771 | 0.779 | 0.789 | 0.793 | 0.753 | 0.823 | 0.796 | 0.860 |
| 550 | 1.000 | 1.047 | 1.082 | 1.075 | 1.063 | 1.105 | 1.093 | 1.093 |
| 500 | 1.468 | 1.527 | 1.548 | 1.545 | 1.530 | 1.579 | 1.631 | 1.537 |
| 450 | 2.245 | 2.309 | 2.318 | 2.345 | 2.236 | 2.352 | 2.379 | 2.257 |
| 400 | 3.541 | 3.660 | 3.696 | 3.699 | 3.520 | 3.570 | 3.543 | 3.336 |
| 350 | 5.441 | 5.528 | 5.536 | 5.362 | 5.092 | 5.069 | | |
| 300 | | | 7.441 | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 467.6 | 462.6 | 398.6 | 438.6 | 393.6 | 330.6 | 325.9 | 338.9 |
| 900 | 387.1 | 376.3 | 363.5 | 345.5 | 334.6 | 319.4 | 327.5 | 367.4 |
| 850 | 349.8 | 332.1 | 328.1 | 321.3 | 320.1 | 311.2 | 308.4 | 326.9 |
| 800 | 296.4 | 303.4 | 292.5 | 293.8 | 302.3 | 283.9 | 287.3 | 290.5 |
| 750 | 260.3 | 274.9 | 263.3 | 263.6 | 266.7 | 244.9 | 271.3 | 260.9 |
| 700 | 239.5 | 241.2 | 238.1 | 236.5 | 239.2 | 228.7 | 255.3 | 231.2 |
| 650 | 218.6 | 206.3 | 212.8 | 211.5 | 216.3 | 215.7 | 219.7 | 213.0 |
| 600 | 193.0 | 183.5 | 182.8 | 186.0 | 190.7 | 202.7 | 177.7 | 198.1 |
| 550 | 167.5 | 160.8 | 152.9 | 160.2 | 155.6 | 160.9 | 150.0 | 183.3 |
| 500 | 137.5 | 138.0 | 136.1 | 135.9 | 134.9 | 137.7 | 144.7 | 156.2 |
| 450 | 116.3 | 117.4 | 121.0 | 117.3 | 124.0 | 126.4 | 139.4 | 132.1 |
| 400 | 113.9 | 115.0 | 116.6 | 123.1 | 123.7 | 132.6 | 138.0 | 149.2 |
| 350 | 145.7 | 159.4 | 151.1 | 176.0 | 200.6 | 231.0 | | |
| 300 | | | 181.7 | | | | | |
| LONG | -65.88 | -65.59 | -65.05 | -64.60 | -64.10 | -63.54 | -63.07 | -62.27 |
| LAT | -37.75 | -39.19 | -41.68 | -43.60 | -45.53 | -47.50 | -49.03 | -51.47 |
| QUAL | 11 | 12 | 11 | 12 | 12 | 12 | 13 | 13 |

PASS 5427 AT SOLANT, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 231504 | 231521 | 231650 | 231725 | 231743 | 231801 | 231818 | 231836 |
| 1000 | 0.164 | 0.190 | 0.180 | 0.176 | 0.181 | 0.185 | 0.184 | 0.177 |
| 950 | 0.184 | 0.213 | 0.206 | 0.200 | 0.208 | 0.212 | 0.216 | 0.204 |
| 900 | 0.208 | 0.240 | 0.241 | 0.232 | 0.244 | 0.243 | 0.252 | 0.240 |
| 850 | 0.236 | 0.274 | 0.275 | 0.268 | 0.284 | 0.285 | 0.294 | 0.282 |
| 800 | 0.276 | 0.321 | 0.322 | 0.313 | 0.330 | 0.338 | 0.344 | 0.330 |
| 750 | 0.327 | 0.392 | 0.387 | 0.379 | 0.396 | 0.405 | 0.412 | 0.405 |
| 700 | 0.401 | 0.504 | 0.477 | 0.467 | 0.483 | 0.494 | 0.505 | 0.500 |
| 650 | 0.506 | 0.683 | 0.594 | 0.590 | 0.609 | 0.624 | 0.641 | 0.641 |
| 600 | 0.658 | 0.991 | 0.779 | 0.770 | 0.800 | 0.810 | 0.813 | 0.847 |
| 550 | 0.892 | 1.467 | 1.096 | 1.054 | 1.098 | 1.117 | 1.109 | 1.105 |
| 500 | 1.284 | 2.123 | 1.630 | 1.496 | 1.537 | 1.558 | 1.602 | 1.578 |
| 450 | 2.001 | 3.057 | 2.470 | 2.265 | 2.315 | 2.338 | 2.395 | 2.334 |
| 400 | 3.292 | 4.554 | 3.833 | 3.593 | 3.515 | 3.626 | 3.635 | 3.506 |
| 350 | 5.297 | 6.320 | 5.369 | | 5.114 | 5.008 | 5.064 | 4.880 |
| 300 | 7.033 | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 435.6 | 423.6 | 468.5 | 353.2 | 371.1 | 378.1 | 325.5 | 347.3 |
| 900 | 396.4 | 391.4 | 376.6 | 344.6 | 336.2 | 339.0 | 328.1 | 325.4 |
| 850 | 366.7 | 338.4 | 338.7 | 320.4 | 321.3 | 313.1 | 313.3 | 300.7 |
| 800 | 315.8 | 286.9 | 292.2 | 294.1 | 306.3 | 288.9 | 291.3 | 275.8 |
| 750 | 263.0 | 239.8 | 261.3 | 262.2 | 270.1 | 267.2 | 259.9 | 249.6 |
| 700 | 230.9 | 197.7 | 239.4 | 230.2 | 233.2 | 234.2 | 233.3 | 223.4 |
| 650 | 210.5 | 161.2 | 215.0 | 199.3 | 199.8 | 198.3 | 214.2 | 202.7 |
| 600 | 185.8 | 134.0 | 174.3 | 175.5 | 174.9 | 175.7 | 195.0 | 187.0 |
| 550 | 154.5 | 129.3 | 145.5 | 156.8 | 156.7 | 160.2 | 154.3 | 171.3 |
| 500 | 124.0 | 137.9 | 126.4 | 141.9 | 139.7 | 146.6 | 134.2 | 147.5 |
| 450 | 110.7 | 133.3 | 118.1 | 110.1 | 121.4 | 118.1 | 126.0 | 127.4 |
| 400 | 100.8 | 136.8 | 130.7 | 111.6 | 127.3 | 138.4 | 136.8 | 136.3 |
| 350 | 127.9 | 187.2 | 200.0 | | 222.5 | 201.6 | 239.6 | 303.6 |
| 300 | 316.2 | | | | | | | |
| LONG | -66.07 | -65.88 | -64.82 | -64.34 | -64.08 | -63.82 | -63.54 | -63.23 |
| LAT | -36.81 | -37.75 | -42.67 | -44.59 | -45.58 | -46.57 | -47.50 | -48.49 |
| QUAL | 12 | 11 | 12 | 12 | 11 | 12 | 12 | 11 |

PASS 5427 AT SOLANT, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 231854 | 231911 | 231929 | 232041 | 232058 | 232116 | 232133 | 232151 |
| 1000 | 0.184 | 0.182 | 0.190 | 0.212 | 0.177 | 0.200 | 0.195 | 0.192 |
| 950 | 0.216 | 0.213 | 0.219 | 0.235 | 0.203 | 0.235 | 0.227 | 0.225 |
| 900 | 0.251 | 0.248 | 0.254 | 0.268 | 0.234 | 0.276 | 0.262 | 0.262 |
| 850 | 0.292 | 0.289 | 0.294 | 0.320 | 0.270 | 0.324 | 0.305 | 0.304 |
| 800 | 0.341 | 0.338 | 0.344 | 0.389 | 0.325 | 0.381 | 0.357 | 0.362 |
| 750 | 0.412 | 0.408 | 0.415 | 0.464 | 0.397 | 0.458 | 0.432 | 0.436 |
| 700 | 0.499 | 0.495 | 0.502 | 0.556 | 0.485 | 0.560 | 0.526 | 0.528 |
| 650 | 0.628 | 0.623 | 0.636 | 0.707 | 0.625 | 0.716 | 0.679 | 0.697 |
| 600 | 0.829 | 0.824 | 0.838 | 0.905 | 0.800 | 0.917 | 0.877 | 0.919 |
| 550 | 1.081 | 1.077 | 1.091 | 1.148 | 1.042 | 1.168 | 1.120 | 1.214 |
| 500 | 1.536 | 1.507 | 1.535 | 1.641 | 1.450 | 1.682 | 1.595 | 1.650 |
| 450 | 2.298 | 2.185 | 2.210 | 2.311 | 2.101 | 2.379 | 2.263 | 2.269 |
| 400 | 3.524 | 3.320 | 3.181 | | 3.050 | | 3.195 | 3.219 |
| 350 | 4.781 | 4.831 | 4.503 | | | | 4.046 | 4.072 |
| 300 | | | | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 328.9 | 322.6 | 329.7 | 421.9 | 356.2 | 310.6 | 318.3 | 306.4 |
| 900 | 332.4 | 328.5 | 339.5 | 351.4 | 329.4 | 311.8 | 331.7 | 328.7 |
| 850 | 311.3 | 309.0 | 314.0 | 324.6 | 297.8 | 302.7 | 310.1 | 294.7 |
| 800 | 287.3 | 285.6 | 288.1 | 297.8 | 275.8 | 290.6 | 287.0 | 274.6 |
| 750 | 263.4 | 262.0 | 263.7 | 266.5 | 254.1 | 256.1 | 256.1 | 255.5 |
| 700 | 239.5 | 238.4 | 239.3 | 238.2 | 232.5 | 222.6 | 225.3 | 235.9 |
| 650 | 216.7 | 216.4 | 217.2 | 221.5 | 215.4 | 209.9 | 210.8 | 201.7 |
| 600 | 195.3 | 196.4 | 196.9 | 204.8 | 198.4 | 197.1 | 196.4 | 178.8 |
| 550 | 173.9 | 176.5 | 176.7 | 188.0 | 178.4 | 184.1 | 182.1 | 169.1 |
| 500 | 146.6 | 152.7 | 155.8 | 164.0 | 151.0 | 159.9 | 160.0 | 162.1 |
| 450 | 122.9 | 129.5 | 138.4 | 149.6 | 136.4 | 144.4 | 145.4 | 157.9 |
| 400 | 139.5 | 128.1 | 139.6 | | 148.8 | | 155.5 | 168.4 |
| 350 | 229.6 | 381.8 | 226.8 | | | | 550.8 | 350.8 |
| 300 | | | | | | | | |
| LONG | -62.93 | -62.61 | -62.25 | -60.67 | -60.27 | -59.76 | -59.26 | -58.74 |
| LAT | -49.47 | -50.40 | -51.38 | -55.28 | -56.20 | -57.17 | -58.09 | -59.06 |
| QUAL | 12 | 11 | 12 | 13 | 11 | 13 | 11 | 11 |

PASS 5427 AT SOLANT, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 232209 | 232226 | 232244 | 232302 | 232319 | 232337 | 232354 | 232412 |
| 1000 | 0.193 | 0.180 | 0.184 | 0.169 | 0.177 | 0.176 | 0.192 | 0.188 |
| 950 | 0.224 | 0.213 | 0.214 | 0.200 | 0.203 | 0.203 | 0.224 | 0.218 |
| 900 | 0.262 | 0.252 | 0.254 | 0.234 | 0.236 | 0.236 | 0.264 | 0.253 |
| 850 | 0.305 | 0.294 | 0.294 | 0.274 | 0.274 | 0.272 | 0.302 | 0.291 |
| 800 | 0.361 | 0.347 | 0.341 | 0.324 | 0.323 | 0.318 | 0.347 | 0.336 |
| 750 | 0.433 | 0.414 | 0.399 | 0.386 | 0.388 | 0.375 | 0.405 | 0.395 |
| 700 | 0.525 | 0.507 | 0.493 | 0.470 | 0.474 | 0.450 | 0.484 | 0.474 |
| 650 | 0.666 | 0.639 | 0.632 | 0.596 | 0.600 | 0.557 | 0.603 | 0.592 |
| 600 | 0.854 | 0.814 | 0.825 | 0.784 | 0.777 | 0.721 | 0.765 | 0.750 |
| 550 | 1.089 | 1.031 | 1.068 | 1.028 | 1.002 | 0.934 | 0.965 | 0.948 |
| 500 | 1.601 | 1.426 | 1.513 | 1.411 | 1.356 | 1.239 | 1.272 | 1.234 |
| 450 | 2.346 | 2.058 | 2.154 | 1.948 | 1.882 | 1.752 | 1.778 | 1.710 |
| 400 | 3.273 | 2.896 | 3.012 | 2.832 | 2.674 | 2.489 | 2.500 | 2.426 |
| 350 | | 3.811 | 3.911 | 3.905 | 3.701 | 3.445 | 3.430 | 3.207 |
| 300 | | | | | | | | |

| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 950 | 310.4 | 301.3 | 322.3 | 309.1 | 357.1 | 355.0 | 334.4 | 340.6 |
| 900 | 327.6 | 317.7 | 334.6 | 316.8 | 338.0 | 345.0 | 350.6 | 350.6 |
| 850 | 302.2 | 308.3 | 334.7 | 306.0 | 318.3 | 330.5 | 354.7 | 345.7 |
| 800 | 290.2 | 291.3 | 311.1 | 290.5 | 291.7 | 310.2 | 333.5 | 321.7 |
| 750 | 272.5 | 274.9 | 285.2 | 271.9 | 259.9 | 286.1 | 296.8 | 289.0 |
| 700 | 220.8 | 219.4 | 216.2 | 227.5 | 225.3 | 249.1 | 250.6 | 244.9 |
| 650 | 207.3 | 206.1 | 196.3 | 203.4 | 207.9 | 221.8 | 231.3 | 226.6 |
| 600 | 193.8 | 197.4 | 187.1 | 192.5 | 198.2 | 206.9 | 217.4 | 215.6 |
| 550 | 180.2 | 188.7 | 177.9 | 181.7 | 188.6 | 192.0 | 203.4 | 204.5 |
| 500 | 152.1 | 168.3 | 160.4 | 165.8 | 172.9 | 175.0 | 184.6 | 188.0 |
| 450 | 145.8 | 143.4 | 147.5 | 147.5 | 152.5 | 153.4 | 158.4 | 161.4 |
| 400 | 189.3 | 160.7 | 159.2 | 147.6 | 152.8 | 154.3 | 158.6 | 155.2 |
| 350 | | 301.9 | 1085.4 | 251.7 | 206.6 | 200.4 | 231.4 | 237.3 |
| 300 | | | | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| LONG | -58.16 | -57.55 | -56.90 | -56.24 | -55.47 | -54.65 | -53.87 | -52.89 |
| LAT | -60.02 | -60.92 | -61.87 | -62.82 | -63.71 | -64.65 | -65.54 | -66.46 |
| QUAL | 12 | 11 | 11 | 11 | 11 | 12 | 12 | 11 |

PASS 5427 AT SOLANT, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | 232447 | 232505 | 232523 | 232540 | 232558 | 232633 | 232646 | 232716 |
| 1000 | 0.191 | 0.172 | 0.195 | 0.199 | 0.196 | 0.163 | 0.199 | 0.175 |
| 950 | 0.220 | 0.198 | 0.225 | 0.230 | 0.225 | 0.195 | 0.226 | 0.203 |
| 900 | 0.255 | 0.228 | 0.256 | 0.269 | 0.255 | 0.227 | 0.258 | 0.239 |
| 850 | 0.291 | 0.261 | 0.293 | 0.301 | 0.291 | 0.266 | 0.296 | 0.275 |
| 800 | 0.335 | 0.304 | 0.337 | 0.340 | 0.336 | 0.312 | 0.343 | 0.319 |
| 750 | 0.391 | 0.357 | 0.393 | 0.397 | 0.397 | 0.366 | 0.404 | 0.372 |
| 700 | 0.464 | 0.430 | 0.469 | 0.479 | 0.475 | 0.433 | 0.481 | 0.453 |
| 650 | 0.581 | 0.529 | 0.582 | 0.587 | 0.594 | 0.535 | 0.609 | 0.557 |
| 600 | 0.752 | 0.676 | 0.737 | 0.718 | 0.748 | 0.692 | 0.777 | 0.696 |
| 550 | 0.969 | 0.864 | 0.929 | 0.875 | 0.936 | 0.897 | 0.986 | 0.886 |
| 500 | 1.291 | 1.097 | 1.204 | 1.056 | 1.213 | 1.177 | 1.303 | 1.156 |
| 450 | 1.755 | 1.532 | 1.644 | 1.521 | 1.655 | 1.590 | 1.732 | 1.627 |
| 400 | 2.411 | 2.104 | 2.222 | 2.127 | 2.240 | 2.163 | 2.252 | 2.250 |
| 350 | 3.226 | 2.897 | 2.989 | 2.757 | 3.007 | 2.942 | | 3.021 |
| 300 | | | 3.483 | | | | | |
| HEIGHT | SCALE HEIGHT, KM | | | | | | | |
| 950 | 363.6 | 358.8 | 354.4 | 402.3 | 365.5 | 295.3 | 399.6 | 352.4 |
| 900 | 362.4 | 353.4 | 370.0 | 420.6 | 377.8 | 316.5 | 371.5 | 344.1 |
| 850 | 356.4 | 342.9 | 353.9 | 403.8 | 353.9 | 313.4 | 346.8 | 331.5 |
| 800 | 335.6 | 319.7 | 335.7 | 363.5 | 325.3 | 309.8 | 324.7 | 311.5 |
| 750 | 300.1 | 288.0 | 306.7 | 310.9 | 286.2 | 297.2 | 284.1 | 291.4 |
| 700 | 253.3 | 250.9 | 248.1 | 250.7 | 243.3 | 256.4 | 246.2 | 267.2 |
| 650 | 228.9 | 224.4 | 230.5 | 241.4 | 232.6 | 230.4 | 233.1 | 242.5 |
| 600 | 213.3 | 213.6 | 219.9 | 232.1 | 222.1 | 216.1 | 219.9 | 219.1 |
| 550 | 197.7 | 202.9 | 209.3 | 222.8 | 211.5 | 201.8 | 206.8 | 197.4 |
| 500 | 182.8 | 191.7 | 195.9 | 213.5 | 197.1 | 187.4 | 199.1 | 177.9 |
| 450 | 168.5 | 172.3 | 177.2 | 179.6 | 176.8 | 172.9 | 193.9 | 163.9 |
| 400 | 161.5 | 169.4 | 176.7 | 172.2 | 181.0 | 163.7 | 193.6 | 170.9 |
| 350 | 470.5 | 211.6 | 196.8 | 236.6 | 212.5 | 107.1 | | 197.6 |
| 300 | | | 1107.6 | | | | | |
| LONG | -50.82 | -49.65 | -48.23 | -46.89 | -45.47 | -41.72 | -40.30 | -36.32 |
| LAT | -68.25 | -69.16 | -70.04 | -70.88 | -71.76 | -73.38 | -73.98 | -75.29 |
| QUAL | 11 | 12 | 11 | 12 | 12 | 11 | 13 | 13 |

PASS 5427 AT SOLANT, 631031

ELECTRON DENSITY IN ELECTRONS PER CC (X10-5)

| HEIGHT | TIME (UT) | | |
|---|---|---|---|
| | 232744 | 232759 | 232816 |
| 1000 | 0.189 | 0.170 | 0.215 |
| 950 | 0.215 | 0.205 | 0.238 |
| 900 | 0.244 | 0.236 | 0.267 |
| 850 | 0.280 | 0.274 | 0.306 |
| 800 | 0.326 | 0.325 | 0.356 |
| 750 | 0.386 | 0.387 | 0.418 |
| 700 | 0.461 | 0.463 | 0.507 |
| 650 | 0.584 | 0.598 | 0.651 |
| 600 | 0.744 | 0.767 | 0.837 |
| 550 | 0.941 | 0.969 | 1.070 |
| 500 | 1.237 | 1.285 | 1.398 |
| 450 | 1.659 | 1.720 | 1.795 |
| 400 | 2.249 | 2.358 | 2.354 |
| 350 | 3.048 | 3.173 | |
| 300 | | | |

| HEIGHT | SCALE HEIGHT, KM | | |
|---|---|---|---|
| 950 | 387.9 | 317.9 | 470.3 |
| 900 | 371.0 | 330.7 | 396.8 |
| 850 | 343.5 | 298.7 | 360.0 |
| 800 | 314.4 | 282.2 | 320.6 |
| 750 | 277.8 | 265.8 | 275.5 |
| 700 | 240.7 | 249.4 | 244.8 |
| 650 | 229.5 | 233.8 | 231.9 |
| 600 | 218.2 | 218.3 | 219.1 |
| 550 | 206.9 | 202.7 | 206.9 |
| 500 | 192.5 | 186.8 | 200.8 |
| 450 | 175.5 | 170.8 | 194.7 |
| 400 | 176.2 | 176.6 | 180.8 |
| 350 | 203.0 | 216.0 | |
| 300 | | | |

| | | | |
|---|---|---|---|
| LONG | -32.00 | -29.69 | -26.04 |
| LAT | -76.45 | -77.07 | -77.64 |
| QUAL | 12 | 23 | 33 |